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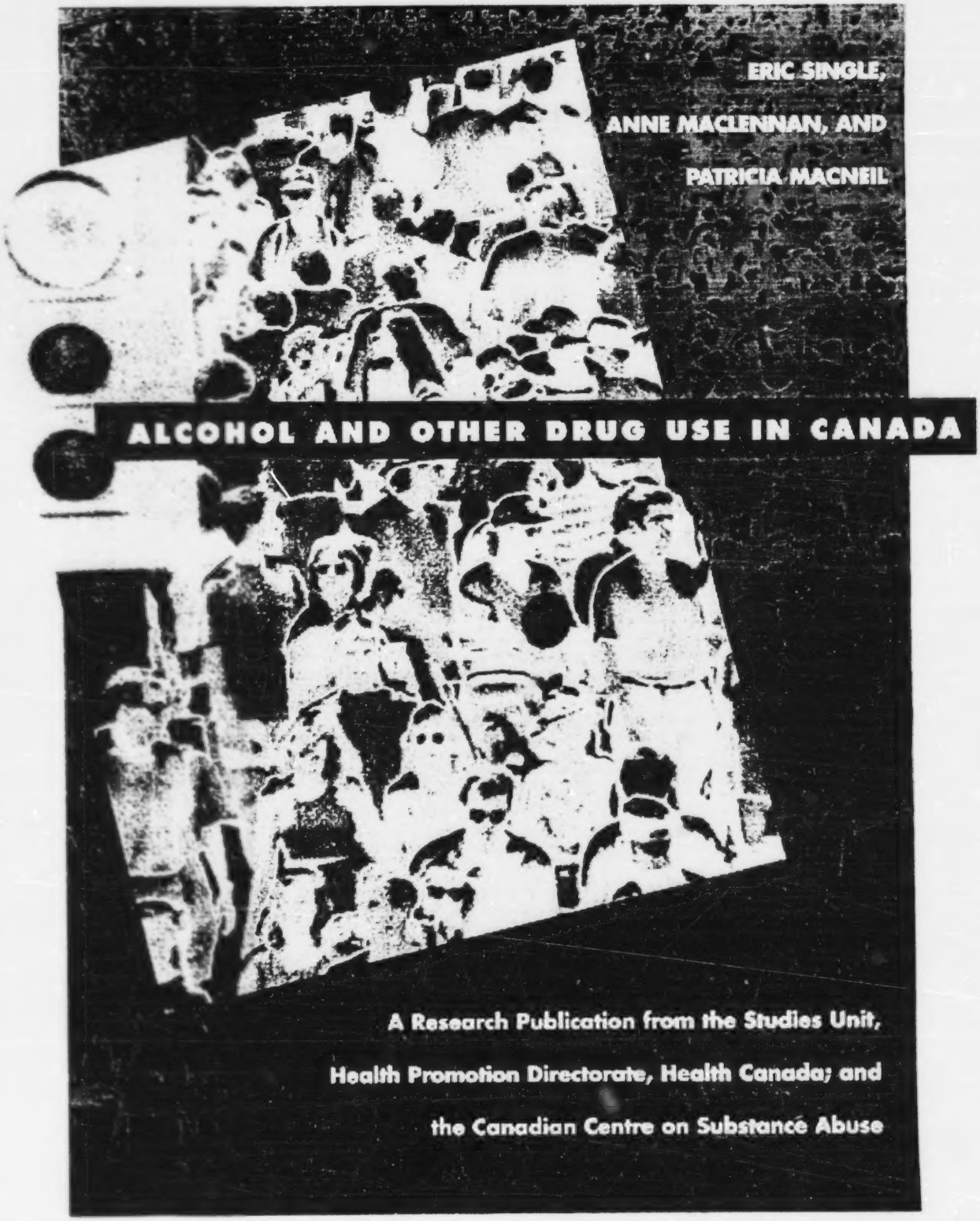

ERIC SINGLE,
ANNE MACLENNAN, AND
PATRICIA MACNEIL

ALCOHOL AND OTHER DRUG USE IN CANADA

A Research Publication from the Studies Unit,
Health Promotion Directorate, Health Canada; and
the Canadian Centre on Substance Abuse

Canada

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PREFACE

Canada's Drug Strategy, which was launched by the federal government in May 1987, is a collaborative endeavour of Canada's federal, 10 provincial, and two territorial governments and many nongovernmental organizations. The shared objective of the many partners in the range of related work is to reduce harm caused by alcohol and other drug use.

Horizons 1994: Alcohol and Other Drug Use in Canada is the first research-based publication to emerge from the Drug Strategy since it entered its second phase in 1992. The publication presents one of the most comprehensive views to date of available knowledge about alcohol and other drug use, and related health and social problems, in Canada. It also captures emerging developments in all of the provinces and territories that are of potential significance to the country as a whole. In presenting what is known, it also provides insight into what remains to be learned.

A joint research project of the Studies Unit, Health Promotion Directorate, Health Canada and the Canadian Centre on Substance Abuse, *Horizons 1994* is for people interested in the effects of harmful use of alcohol, tobacco, and other drugs—on individual Canadians and on Canadian society as a whole. All are partners in Canada's Drug Strategy.

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ACKNOWLEDGEMENTS

Horizons 1994 grew out of a proposed update to the two baseline research publications developed in the first phase of Canada's Drug Strategy—*Alcohol in Canada and Licit and Illicit Drugs in Canada*. Marc Eliany, at what was then Health and Welfare Canada, began the updating process in fiscal year 1992/93. In June 1992, consultations with researchers across Canada led to their participation in collecting regional research data. However, staffing changes at Health and Welfare in that year, and consequent delays in work on the project, raised questions about whether the information, once collected, would be sufficiently current and comprehensive to meet readers' needs.

In February 1993, the question of whether or not to continue the work was addressed, and a decision was made: to build on work already done but to move in a new direction. *Horizons 1994* would update alcohol and other drug statistics, but also, once all of the provinces and territories were able to report, provide an overview of some of the work being done across the country. An overview of some of the findings of Statistics Canada's 1993 General Social Survey, to which a number of alcohol—and other drug-related questions were added, is included in this report; the findings were released in June 1994.

Although their work does not directly appear in *Horizons 1994*, the contributors to the early collection of data laid the foundation for this publication. Prominent among them were Marc Eliany, Larry Peters, Peter Urmeister, Marc Kelly, Joseph Levy, and Howard Schachter. Annette Huyter, who carried a great deal of responsibility for data collection in the Maritime region, deserves very special thanks.

Many individuals and groups across the country were involved in developing the reports submitted to Health Canada by the provinces and territories. The names of a number of them are listed in the Appendix: the provincial and territorial authorities directly involved; the research advisory team to Canada's Drug Strategy; and research and program representatives from the provinces and territories, who continue to provide Health Canada

with candid feedback. To all of them, and also to the many other regional contributors too numerous to name but acknowledged here anonymously nonetheless, goes deep appreciation.

Statistics Canada staff, who provided timely data access and analysis, were critical to the currency of *Horizons 1994*. Thanks are due especially to Doug Norris, Ed Praught, Jeff Hatcher, Cathy Trainor, and Nancy Turner.

For their support and patience during development of the publication and review of draft material, special thanks are also due to many people at Health Canada, particularly Tariq Bhatti, Pete Conley, Diane Jacovella, Jim Anderson, and, finally, the people who assisted in the publishing process at the Canadian Centre on Substance Abuse and Health Canada.

EXECUTIVE SUMMARY

Canada's Drug Strategy was launched by the federal government in May 1987 in collaboration with the 10 provincial and two territorial governments and many nongoverment organizations. The objective of the partners is to reduce harm caused by alcohol and other drug use.

Horizons 1994: Alcohol and Other Drug Use in Canada is the first research-based publication to emerge since the Strategy entered its second phase in 1992. The publication is one of the most current and comprehensive views to date of knowledge about alcohol and other drug use and related health and social problems in Canada. It also examines work of potentially national significance in all of the provinces and territories with people at particular risk of harm: women, Métis, Inuit and off-reserve aboriginal peoples, out-of-the-mainstream youth, seniors, and impaired drivers.

Who Drinks?
Fewer Canadians are drinking alcohol. The proportion of people 15 years and older who say in various national surveys that they drink dropped to 74.4% in the 1993 General Social Survey (GSS) from 79.0% in the 1991 GSS. In 1993, 18.0% said they had quit drinking, and 7.7% had never drunk. Men are more likely than women to drink (80.6% vs. 68.4%), and younger people more likely than older (84.6% of those 20 to 24 years old vs. 43.0% of those 65 years and more). Unemployed people, however, are less likely than those working to report drinking in the past year (75.2% vs. 82.7%).

Who Smokes?
Rates of cigarette smoking have declined substantially in recent years, but 29% of Canadians aged 15 and older still smoke regularly, with Québec and Newfoundland having the highest proportion of smokers (34% and 32% respectively) and Ontario and British Columbia the lowest (27% and 26% respectively). Health Canada has been monitoring smoking rates since cigarette prices were reduced. Early results indicate a slight increase in the number of young people (aged 15-19) smoking but no overall change in the amount smoked.

Licit Drugs
In 1993, more than two of every three Canadians aged 15 and older (69.8%) reported using ASA (Aspirin) in the month before the survey. Québecers were least likely to use ASA (59.1%), and people in Saskatchewan, Prince Edward Island, and Nova Scotia were most likely (about 75% each). Narcotic pain relievers, such as codeine, Demerol (meperidine), and morphine, are the most

frequently used type of prescription drugs (8.2%), with use highest in British Columbia (12.4%) and lowest in Québec (3.2%). About 4% of Canadians aged 15 and older—one in 25—reported using sleeping pills, and 3.8% reported using tranquillizers. Of all of the provinces, Québec has the highest reported levels of use of sleeping pills (6.1%) and tranquillizers (7.4%).

Illicit Drugs

In 1993, about one million Canadians (4.2%) aged 15 or older reported use of marijuana in the past year; use is highest in British Columbia and lowest in Saskatchewan.

At-Risk Groups

Data on at-risk populations are limited nationally and rarely comparable region to region, but knowledge is emerging from research projects and programs across the country. Review of work in the provinces and territories—west to east—highlights findings about at-risk populations and provides glimpses of some of the diverse regional forces—social, geographical, and historical—that help shape the larger picture of alcohol—and other drug related harm in Canada.

Issues and Challenges

The Drug Strategy is complex and challenging, but there is growing acknowledgement and understanding of some of the difficulties. Researchers and other contributors to this document refer to a range of issues: difficulties around gathering the data and developing new knowledge; around getting the information out to the people who need it and in the language and format in which they need it; around reconciling research imperatives with the requirements of policymakers; and, for the treatment worker and program person, around translating what is new and useful into action in the community. With understanding of some of the problems comes progress.

A NOTE FROM THE AUTHORS

Research is a critical component of Canada's Drug Strategy. As the multifaceted Strategy has evolved, so too have the depth and scope of the research, the new knowledge available, and, as important, the needs of the many and diverse Strategy partners across Canada.

From its inception in 1987 until early 1992, the Strategy and related research programs focused on alcohol and other drug use in the general population. In 1992, building on knowledge gained in the first five years, the focus of work was widened to include, as well, "special" populations—people now seen to be at particular risk of harm from alcohol and other drug use: street youth and school dropouts, women, seniors, off-reserve aboriginal people, and impaired drivers.

Thus, *Horizons 1994*, draws on a larger body of research than has ever before been available—not only on the general population but also now on special populations. The wealth of information, some of which only emerged in the spring of 1994, allows the publication to be one of the richest and most comprehensive views yet of the extent and nature of use and misuse of alcohol and other drugs and related health and social problems in Canada.

Although guided by research publications in the Strategy's first phase, *Horizons 1994* includes for the first time two important additions. Section IV, At-Risk Populations: A Cross-Canada Review, consists of a series of reports grouped by individual province and territory, west to east—on research developments and programs of interest and potential national significance in each of Canada's 10 provinces and two territories.

The reports by no means reflect all of the work under way in each region. Rather, their significance at this stage of the Strategy—and the thematic link among them—is their focus on many and diverse areas of the Canadian research map that are still not well defined. Definition, as well as national data, may be lacking because a problem is new or appears to be local. Gambling problems, for example, are relatively new but are touched on here because they fall increasingly to alcohol and other drug professionals, as "addictions" specialists, to examine. Use of steroids or of non-beverage alcohol may be a localized problem, but both are included because the response of one community may benefit others. In most of these reports, however, the problems are neither new nor local but have remained largely unexplored on a national scale.

Although selection of items for inclusion was guided by at-risk popula-

tion issues, there is extreme unevenness in the amount and kind of information available on these populations. To review each one of them, while compelling, would be to exaggerate the disparities. More important, it would minimize the richness of "fugitive" information and regional insight captured here. Grouping by region allows all provinces and territories to be acknowledged and provides unusual perspective on the diversity of historical, geographical, and social forces that help to shape alcohol and other drug problems in Canada—and to drive our responses to them.

The other new feature, Section V, New Horizons: Research Issues and Challenges, is a review of some of the concerns facing workers in the field, particularly researchers. Researchers and research groups across the country are responsible for developing the vast array of documentation from which this publication has been synthesized. Just as their findings are critical to policymakers and treatment workers, administrators and prevention specialists, so too are many of the problems they face working in a field so complex and a country so vast. For it is in solutions to some of their problems that much future progress in the larger field lies.

Thus, it is with a view to our common future that *Horizons 1994* is aimed not only at researchers but also at all of those others working in the field and to whom research is an essential tool. The objective is twofold: to alert the many partners in Canada's Drug Strategy to the growing national research information base on alcohol and other drug use and also to catalyse new work and dialogue among people across the country on reducing alcohol—and other drug-related harm in Canada, especially among those at high risk.

UPDATE 1994

ALCOHOL, TOBACCO, AND OTHER DRUG USE IN CANADA

Use of tobacco and high-risk use of alcohol and other drugs represent major social and health problems in Canada, whether measured by public attitudes or by statistical indices. Tobacco use and high-risk alcohol use are among the leading causes of preventable death and illness; the related social and economic costs are enormous.

This section describes the extent and nature of the use of drugs in Canada up to the spring of 1994. Following a summary report at the beginning, there are separate subsections on alcohol, tobacco, licit drugs, including prescribed and over-the-counter medications, and illicit drugs. Each subsection includes information on use and problems and also comments on related economic issues and social attitudes.

Table 1 presents an overview of the use of alcohol, tobacco, and other drugs, illustrating provincial and national differences. Data on rates of self-reported use are taken from the General Social Survey of 1993. Smoking rates are from the 1990 Health Promotion Survey. (These surveys involved the general populations of all the provinces, but not of Yukon and Northwest Territories.) Data on levels of consumption for alcohol and tobacco derive from the most recently available sales statistics in all regions. More detailed descriptions of patterns and consequences of use for each drug are presented in the subsequent sections.

Alcohol

Across Canada, the proportion of the population who report drinking varies by province (Table 1). In the 10 provinces included in the 1993 General Social Survey, the percentage of respondents aged 15 or older who reported drinking in the past 12 months ranges from 71.2% in British Columbia to

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77.4% in Manitoba. Sales data indicate that in 1991 Canadians consumed the equivalent of 8.7 litres of absolute alcohol per person aged 15 or older. Thus, in terms of the number of standard drinks, the average Canadian 15 or older had about 9.8 drinks a week. In 1990/91, consumption was highest in Yukon Territory (15.9 litres), the Northwest Territories (11.1 litres), and British Columbia (10.1 litres); it was lowest in New Brunswick (6.6 litres), Saskatchewan (7.3 litres), Prince Edward Island (7.4 litres), and Québec (7.7 litres).

TABLE 1: Use of alcohol, tobacco, and selected drugs in Canada, 1993

	Current drinkers[1,6]	Litres per person	Tobacco use[3]	Aspirin use[4,6]	Tranquil-liser use[4,6]	Sleeping pill use[4,6]	Narcotic analgesic use[4,6]	Cannabis use[5,6]	Cocaine or crack use[5,6]	LSD, speed or heroin use[5,6]
Canada	74.4%	8.7	29%	67.8%	3.8%	4.2%	8.2%	4.2	0.3%	0.3%
NF	76	9.2	32	69.5	0.9*	2.1*	7.0	3.4*	0.0*	0.0*
PE	76.9	7.4	31	74.5	1.4*	4.8*	11.7*	5.4*	0.0*	0.6*
NS	74.1	7.9	31	74.4	3.0*	4.7	10.2	5.2	0.6*	0.8*
NB	72.1	6.6	28	73.3	3.2*	3.3*	9.9	3.4*	0.0*	0.1*
QC	72.2	7.7	34	59.1	7.1	6.1	3.2	4.7	0.6	0.3*
ON	76.8	9.1	27	73.6	3.1	3.4	9.9	3.6	0.1*	0.1*
MB	77.4	7.9	29	72.8	2.3*	2.8*	9.2	3.3*	0.0*	0.1*
SK	73.1	7.3	31	75.6	1.3*	3.2*	6.5	2.3*	0.0*	0.4*
AB	74.3	9.3	30	73.9	2.5	3.4	9.0	3.7	0.1*	0.5*
BC	71.2	10.1	26	72.3	2.2	4.6	12.4	6.0	0.8*	0.6*

[1] Any use of alcohol in the past 12 months.
[2] Litres absolute alcohol sold per person 15+ years of age. Based on data obtained from the Public Institutions Division, Statistics Canada, 1990/91.
[3] Current use. Source: Health and Welfare Canada, T. Stephens, and D. Fowler-Graham (Editors) Canada's Health Promotion Survey 1990: Technical Report (Ottawa: Ministry of Supply and Services Canada, 1993).
[4] Any use of the drug in the past month.
[5] Any use of the drug in the past year.
[6] Source: (All data except tobacco and alcohol sales) General Social Survey, 1993.
* Data should be interpreted with caution due to high sampling variability.

77.4% in Manitoba. Sales data indicate that in 1991 Canadians consumed the equivalent of 8.7 litres of absolute alcohol per person aged 15 or older. Thus, in terms of the number of standard drinks, the average Canadian 15 or older had about 9.8 drinks a week. In 1990-91, consumption was highest in Yukon Territory (15.9 litres), the Northwest Territories (11.1 litres), and British Columbia (10.1 litres); it was lowest in New Brunswick (6.6 litres), Saskatchewan (7.3 litres), Prince Edward Island (7.4 litres), and Québec (7.7 litres).

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NS	74.1	7.9	31	74.4	3.0*	4.7	10.2	5.2	0.6*	0.8*
NB	72.1	6.6	28	73.3	3.2*	3.3*	9.9	3.4*	0.0*	0.1*
QC	72.2	7.7	34	59.1	7.1	6.1	3.2	4.7	0.6	0.3*
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[3] Current use. Source: Health and Welfare Canada, T. Stephens, and D. Fowler-Graham (Editors) Canada's Health Promotion Survey 1990: Technical Report (Ottawa: Ministry of Supply and Services Canada, 1993).
[4] Any use of the drug in the past month.
[5] Any use of the drug in the past year.
[6] Source: (All data except tobacco and alcohol sales) General Social Survey, 1993.
* Data should be interpreted with caution due to high sampling variability.

Tobacco

Although rates of cigarette smoking have declined substantially in recent years, 29% of Canadians aged 15 or older still smoke regularly. The proportions of the population who smoke vary across the country. Québec (34%) and Newfoundland (32%) have the highest proportion of smokers, Ontario (27%) and British Columbia (26%) the lowest.

Licit Drugs, including Prescribed and Over-the-Counter Medications

In 1993, more than two of every three Canadians aged 15 or older (69.8%) reported using ASA (Aspirin, etc.) in the previous month. The most frequently used type of prescription drug is narcotic pain relievers (8.2% using in the previous month), such as codeine, Demerol, and morphine. About one in 25 (4.2%) reported using sleeping pills, and 3.8% tranquillizers. ASA use is lowest in Québec (59.1%) and highest in Saskatchewan (75.6%), Prince Edward Island (74.5%), and Nova Scotia (74.4%). Use of prescription narcotic painkillers is highest in British Columbia (12.4%) and lowest in Québec (3.2%). Although their use of most prescription drugs is relatively low, Québecers have the highest reported levels of use of sleeping pills (6.1%) and tranquillizers (7.4%) among the 10 provinces.

Illicit Drugs

In 1993, approximately one million Canadians (4.2%) reported using marijuana in the past year. Use is highest in British Columbia (6.0%) and lowest in Saskatchewan (2.3%). Otherwise, there is relatively little variation among the provinces, with rates of current marijuana use ranging between 3.3% in Manitoba and 5.3% in Prince Edward Island.

As provincial reports of use of cocaine and crack, heroin, LSD, and speed are minimal, Statistics Canada strongly advises that the percentages be interpreted with extreme caution. However, in 1993, some 0.3% of Canadians aged 15 or older reported using cocaine or crack and 0.3% reported using heroin, LSD, or speed. Cocaine or crack use is most frequently reported in British Columbia (0.8%), Nova Scotia (0.6%), and Québec (0.6%). In all of the other provinces, it is 0.1% or less. Reported use of heroin, LSD, or speed is highest in Nova Scotia (0.8%), British Columbia (0.6%), and Prince Edward Island

TABLE 2: Belief about high importance (rating 7-10 out of 10) of government action on selected health topics, by age, gender, province, income, and education, aged 15 or older, Canada, 1990

	Drug use	Smoking	Alcohol problems	AIDS
TOTAL 15+	79%	53%	63%	78%
SEX				
Male	75	48	55	74
Female	84	57	71	82
AGE				
15-19	77	50	61	89
20-24	72	44	59	85
25-34	78	50	65	81
35-44	81	54	64	77
45-54	85	58	65	78
55-64	83	56	64	71
65+	77	56	60	69
PROVINCE				
NF	86	63	72	88
PE	81	55	67	80
NS	82	56	64	83
NB	85	62	69	84
QC	80	58	68	77
ON	80	50	60	79
MB	73	47	56	74
SK	78	46	60	73
AB	76	48	62	79
BC	77	53	63	78
INCOME				
Very poor	76	53	65	80
Other poor	78	53	66	75
Lower middle	84	57	69	84
Upper middle	83	53	64	81
Rich	81	54	62	79
Unknown	63	42	50	86
EDUCATION				
Elementary	81	54	65	79
Secondary	81	52	65	82
College	84	57	65	80
University	79	57	60	76

Source: Health and Welfare Canada, T. Stephens, and D. Fowler-Graham, Editors, *Canada's Health Promotion Survey 1990. Technical Report* (Ottawa, Ministry of Supply and Services Canada, 1993)

(0.6%) and lowest in Newfoundland (less than 0.05%), New Brunswick (0.1%), Ontario (0.1%), and Manitoba (0.1%). (Neither Yukon Territory nor the Northwest Territories is covered in the General Social Survey.)

Public Attitudes toward Substance Abuse Issues

Respondents to the 1990 Health Promotion Survey rated the importance of government action with regard to selected health topics on a scale of 1 (low) to 10 (high). As seen in Table 2, the substance use issue rated at 7 or higher by the largest proportion of Canadians was drug use (79%), followed by AIDS (78%), alcohol problems (63%), and smoking (53%). Women express greater concern than men on all substance-related topics. Older Canadians are more concerned about drug issues, younger Canadians about AIDS.

Compared to other Canadians, people in Atlantic Canada generally consider alcohol—and other drug-related issues more important. There are no consistent patterns in their attitudes toward these issues across income and education groups.

ALCOHOL

Alcohol consumption by Canadians continues to decline. Among people responding to this question in the 1993 General Social Survey of the provinces, the proportion of Canadians aged 15 or older who reported drinking in the past year was 74.4%, compared to 79.0% in 1991. Per capita, the equivalent of 8.7 litres of absolute alcohol that Canadians consumed in 1991, as measured by sales, represents a decrease of 4.4% from 1990. Yet, although alcohol-related mortality declined by 2% in 1990, there were still more than 18,500 deaths attributable to alcohol. Impaired driving remains a major cause of death among young Canadians. Among fatally injured drivers in 1990, 43% had some alcohol in their blood and 35% were over the legal limit of .08% blood alcohol concentration (BAC), [i.e. .08 g of absolute alcohol per 100 ml of blood.]

TABLE 3: Alcohol consumption and level of drinking in Canada by socio-demographic variables, General Social Survey, 1993

	Non-drinkers		Current drinkers[2]	Mean drinks per week[3]
	Never	Former[1]		
OVERALL	7.7%	18.0%	74.4%	8.4
SEX				
Male	4.8	14.6	80.6	14.0
Female	10.4	21.2	68.4	2.3
AGE				
15-17 yrs	17.8	24.9	57.3	0.4
18-19 yrs	9.0	12.5	78.6	5.0
20-24 yrs	6.0	9.4	84.6	5.2
25-34 yrs	5.5	12.2	82.3	8.3
35-44 yrs	4.6	15.0	80.4	8.7
45-54 yrs	7.4	16.9	75.6	8.5
55-64 yrs	8.9	24.2	66.9	8.5
65-74 yrs	11.1	27.7	61.3	8.6
75+ yrs	14.3	42.6	43.0	3.8
MARITAL STATUS				
Single	8.3	13.7	78.0	5.6
Married or cohabiting	6.8	18.1	75.1	8.9
Divorced or separated	5.6	18.1	76.1	8.6
Widowed	15.4	36.3	48.3	2.7
INCOME				
Lowest	13.1	23.8	63.1	3.5
Lower middle	10.5	22.2	67.3	3.9
Middle	7.5	20.6	72.0	4.6
Upper middle	4.9	13.0	82.2	8.1
Highest	2.8	9.4	87.8	8.8
EDUCATION				
Completed university	5.2	13.7	81.1	8.0
Some post-secondary	5.1	12.7	82.2	8.5
Secondary	7.3	16.8	75.9	8.0
Less than secondary	11.9	26.1	62.0	8.6
EMPLOYMENT				
Working	4.7	12.6	82.7	8.5
Looking for work	7.0	17.9	75.2	8.0
Student	11.7	16.3	71.9	5.8
Homemaker	14.4	25.8	59.8	2.2
Retired	8.8	31.2	60.0	4.2
Other	8.4	32.9	58.7	8.1

[1] Respondents having drunk no alcohol in the past 12 months
[2] Respondents having drunk any alcohol in the past 12 months
[3] Mean number of drinks per week, calculated from self-reported drinking frequency and usual quantity, for current drinkers only

Tobacco

Although rates of cigarette smoking have declined substantially in recent years, 29% of Canadians aged 15 or older still smoke regularly. The proportions of the population who smoke vary across the country. Québec (34%) and Newfoundland (32%) have the highest proportion of smokers, Ontario (27%) and British Columbia (26%) the lowest.

Licit Drugs, including Prescribed and Over-the-Counter Medications

In 1993, more than two of every three Canadians aged 15 or older (69.8%) reported using ASA (Aspirin, etc.) in the previous month. The most frequently used type of prescription drug is narcotic pain relievers (8.2% using in the previous month), such as codeine, Demerol, and morphine. About one in 25 (4.2%) reported using sleeping pills, and 3.8% tranquillizers. ASA use is lowest in Québec (59.1%) and highest in Saskatchewan (75.6%), Prince Edward Island (74.5%), and Nova Scotia (74.4%). Use of prescription narcotic painkillers is highest in British Columbia (12.4%) and lowest in Québec (3.2%). Although their use of most prescription drugs is relatively low, Québecers have the highest reported levels of use of sleeping pills (6.1%) and tranquillizers (7.4%) among the 10 provinces.

Illicit Drugs

In 1993, approximately one million Canadians (4.2%) reported using marijuana in the past year. Use is highest in British Columbia (6.0%) and lowest in Saskatchewan (2.3%). Otherwise, there is relatively little variation among the provinces, with rates of current marijuana use ranging between 3.3% in Manitoba and 5.3% in Prince Edward Island.

As provincial reports of use of cocaine and crack, heroin, LSD, and speed are minimal, Statistics Canada strongly advises that the percentages be interpreted with extreme caution. However, in 1993, some 0.3% of Canadians aged 15 or older reported using cocaine or crack and 0.3% reported using heroin, LSD, or speed. Cocaine or crack use is most frequently reported in British Columbia (0.8%), Nova Scotia (0.6%), and Québec (0.6%). In all of the other provinces, it is 0.1% or less. Reported use of heroin, LSD, or speed is highest in Nova Scotia (0.8%), British Columbia (0.6%), and Prince Edward Island

TABLE 2: Belief about high importance (rating 7-10 out of 10) of government action on selected health topics, by age, gender, province, income, and education, aged 15 or older, Canada, 1990

	Drug use	Smoking	Alcohol problems	AIDS
TOTAL 15+	79%	53%	63%	78%
SEX				
Male	75	48	55	74
Female	84	57	71	82
AGE				
15-19	77	50	61	89
20-24	72	44	59	85
25-34	78	50	65	81
35-44	81	54	64	77
45-54	85	58	65	78
55-64	83	56	64	71
65+	77	56	60	69
PROVINCE				
NF	86	63	72	88
PE	81	55	67	80
NS	82	56	64	83
NB	85	62	69	84
QC	80	58	68	77
ON	80	50	60	79
MB	73	47	56	74
SK	78	46	60	73
AB	76	48	62	79
BC	77	53	63	78
INCOME				
Very poor	76	53	65	80
Other poor	78	53	66	75
Lower middle	84	57	69	84
Upper middle	83	53	64	81
Rich	81	54	62	79
Unknown	63	42	50	86
EDUCATION				
Elementary	81	54	65	79
Secondary	81	52	65	82
College	84	57	65	80
University	79	57	60	76

Source: Health and Welfare Canada, T. Stephens, and D. Fowler-Graham, Editors, *Canada's Health Promotion Survey 1990: Technical Report* (Ottawa: Ministry of Supply and Services Canada, 1993).

(0.6%) and lowest in Newfoundland (less than 0.05%), New Brunswick (0.1%), Ontario (0.1%), and Manitoba (0.1%). (Neither Yukon Territory nor the Northwest Territories is covered in the General Social Survey.)

Public Attitudes toward Substance Abuse Issues

Respondents to the 1990 Health Promotion Survey rated the importance of government action with regard to selected health topics on a scale of 1 (low) to 10 (high). As seen in Table 2, the substance use issue rated at 7 or higher by the largest proportion of Canadians was drug use (79%), followed by AIDS (78%), alcohol problems (63%), and smoking (53%). Women express greater concern than men on all substance-related topics. Older Canadians are more concerned about drug issues, younger Canadians about AIDS.

Compared to other Canadians, people in Atlantic Canada generally consider alcohol—and other drug-related issues more important. There are no consistent patterns in their attitudes toward these issues across income and education groups.

ALCOHOL

Alcohol consumption by Canadians continues to decline. Among people responding to this question in the 1993 General Social Survey of the provinces, the proportion of Canadians aged 15 or older who reported drinking in the past year was 74.4%, compared to 79.0% in 1991. Per capita, the equivalent of 8.7 litres of absolute alcohol that Canadians consumed in 1991, as measured by sales, represents a decrease of 4.4% from 1990. Yet, although alcohol-related mortality declined by 2% in 1990, there were still more than 18,500 deaths attributable to alcohol. Impaired driving remains a major cause of death among young Canadians. Among fatally injured drivers in 1990, 43% had some alcohol in their blood and 35% were over the legal limit of .08% blood alcohol concentration (BAC), [i.e. .08 g of absolute alcohol per 100 ml of blood.]

TABLE 3: Alcohol consumption and level of drinking in Canada by socio-demographic variables, General Social Survey, 1993

	Non-drinkers			
	Never	Former[1]	Current drinkers[2]	Mean drinks per week[3]
OVERALL	7.7%	18.0%	74.4%	4.4
SEX				
Male	4.8	14.6	80.6	5.9
Female	10.4	21.2	68.4	2.3
AGE				
15-17 yrs	17.8	24.9	57.3	0.4
18-19 yrs	9.0	12.5	78.6	5.0
20-24 yrs	6.0	9.4	84.6	5.2
25-34 yrs	5.5	12.2	82.3	4.3
35-44 yrs	4.6	15.0	80.4	3.7
45-54 yrs	7.4	16.9	75.6	4.5
55-64 yrs	8.9	24.2	66.9	4.5
65-74 yrs	11.1	27.7	61.3	3.6
75+ yrs	14.3	42.6	43.0	3.8
MARITAL STATUS				
Single	8.3	13.7	78.0	5.0
Married or cohabiting	6.8	18.1	75.1	3.9
Divorced or separated	3.6	18.1	76.1	4.6
Widowed	15.4	36.3	48.3	2.7
INCOME				
Lowest	13.1	23.8	63.1	3.5
Lower middle	10.5	22.2	67.3	3.9
Middle	7.5	20.6	72.0	4.0
Upper middle	4.9	13.0	82.2	4.1
Highest	2.8	9.4	87.8	4.8
EDUCATION				
Completed university	5.2	13.7	81.1	4.0
Some post-secondary	5.1	12.7	82.2	4.5
Secondary	7.3	16.8	75.9	4.0
Less than secondary	11.9	26.1	62.0	4.6
EMPLOYMENT				
Working	4.7	12.6	82.7	4.5
Looking for work	7.0	17.9	75.2	5.9
Student	11.7	16.3	71.9	3.8
Homemaker	14.4	25.8	59.8	2.2
Retired	8.8	31.2	60.0	4.2
Other	8.4	32.9	58.7	8.1

[1] Respondents having drunk no alcohol in the past 12 months.
[2] Respondents having drunk any alcohol in the past 12 months.
[3] Mean number of drinks per week, calculated from self-reported drinking frequency and usual quantity, for current drinkers only.

Percentage and Characteristics of Those Who Drink

The proportion of Canadians reporting in various national surveys that they are current drinkers declined to 74.4% in the 1993 General Social Survey from 79.0% in the 1991 General Social Survey, 77.7% in the 1989 National Alcohol and Other Drugs Survey, and 81.0% in the 1985 General Social Survey. In 1993, 18.0% reported they are former drinkers and 7.7% have never drunk alcohol.

Canadian men are more likely than women to be current drinkers (80.6% vs. 68.4%), and the proportion who report drinking declines with age—from 84.6% among those aged 20 to 24 to 43.0% among those 65 or older (Table 3). Those with relatively high income and those with a postsecondary education are more likely to drink than those with less income and education (Table 3). Those who are unemployed are less likely than those who are working to report drinking in the past 12 months (75.2% vs. 82.7% respectively).

Level of Alcohol Consumption

As consumers tend to under-report their use of alcohol in general population surveys, sales data are considered a second useful indicator. Sales data indicate that in 1990/91, Canadians drank about 2.1 billion litres of beer, 238 million litres of wine, and 144 million litres of spirits. Beer accounted for 54.8% of total alcohol consumption, spirits for 30.3%, and wine for 15.0%. The proportion of total consumption accounted for by beer, wine, and spirits also varies by province/territory, with relatively high consumption of beer in Québec, wine in Québec, Ontario, and British Columbia, and spirits in the Northwest Territories and Saskatchewan. (Table 4)

Including the 4.4% decline in alcohol sales in 1991 over 1990, there has been a steady decline in sales since 1980 (Table 5). However, there is no clear long-term trend regarding the amount of consumption accounted for by beer, wine, and spirits. A trend to an increase in the relative consumption of wine and a decrease in the relative consumption of beer in the 1950s and 1960s has not continued. Beer has even shown a slight increase in its share of total consumption in the past few years, whereas the share of spirits has decreased.

TABLE 4: Consumption of beer, wine, spirits, and total alcohol, Canada provinces/territories, 1990/91

	Beer[1]	Wine[2]	Spirits[1]	Total absolute alcohol/person[2]
Canada	2,081,925	237,523	143,804	8.7
NF	48,904	1,543	3,936	9.2
PE	8,310	561	734	7.4
NS	59,492	4,667	5,762	7.9
NB	46,473	3,422	2,943	6.6
QC	540,195	72,764	17,759	7.7
ON	813,304	79,166	59,700	9.1
MB	70,946	5,586	6,908	7.9
SK	54,766	3,896	6,461	7.3
AB	177,230	19,452	18,209	9.3
BC	254,756	45,880	20,640	10.1
YK	3,581	335	261	15.9
NT	3,968	251	493	11.1

[1] x1,000 litres.
[2] Litres.
Source: Based on sales data obtained from the Public Institutions Division, Statistics Canada.

Economic Aspects of Alcohol

In 1990/91 the sales of alcoholic beverages in Canada totalled more than $10 billion. Although overall consumption has been declining, there have been small yet consistent increases in the value of beer and wine sales in recent years in terms of current dollars. The value of spirits, however, has been declining in terms of both real and current dollars. The average Canadian aged 15 or older spent $247 on beer, $84 on wine, and $146 on spirits in 1990/91. The highest per capita expenditure on alcohol was in the Yukon and Northwest Territories, reflecting their higher rates of consumption.

From 1965 until 1985, the real price of alcoholic beverages (relative to other items) was generally increasing. Considered in terms of disposable income, however, the price of alcohol was actually decreasing during this period.[1] Since 1985 there has been little change in the real price of alcohol.

In 1989 more than 19,000 people were employed in the production of alcoholic beverages in Canada, with salaries and wages totalling ap-

TABLE 5: Consumption of alcohol as beer, wine, spirits, and total alcohol:1980/81-1990/91

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Wine	1.44	1.50	1.52	1.51	1.55	1.59	1.53	1.57	1.48	1.40	1.31
Spirits	4.13	4.09	3.82	3.50	3.31	3.16	3.04	3.00	2.89	2.72	2.51
Beer	5.38	5.51	5.36	5.36	5.29	5.22	5.16	5.20	5.09	4.99	4.83
TOTAL	10.95	11.09	10.70	10.37	10.15	9.98	9.73	9.76	9.47	9.10	8.65

Source: Based on data obtained from the Public Institutions Division, Statistics Canada.

proximately $921 million.[2] In 1990/91, alcohol provided $2.97 billion in revenue to provincial and territorial governments; in fact, alcohol represented the source of 2% of total provincial revenues. Federal revenue from alcohol sales was estimated at approximately $1 billion. The value of alcohol exports in 1990/91 was $621 million, compared to $599 million for alcohol imports. Spirits are the major type of exported alcohol. The value of beer imports has been increasing over the past 15 years.

Characteristics of High-Volume Drinkers

The demographic portrait of a high-volume drinker in Canada is that of a well-off young male who frequents bars and taverns. As seen in Table 3, men report consuming more than twice as much alcohol as do women (5.9 drinks per week vs. 2.3 drinks). Drinking rates are particularly high among those in their early twenties (5.2 drinks per week). High-income Canadians report higher levels of consumption than those with lower income. Although education is positively related to whether a person drinks, the least well educated report the highest levels of drinking. Thus, the better educated are more likely to drink, but they tend to drink less.

The highest proportion of drinking in Canada occurs in private settings, such as on quiet evenings at home (18%), at parties or other social gatherings (16%), when having friends visit (16%), or when visiting others (15%). Drinking in bars and taverns accounts for 12% of consumption, and drinking in restaurants 13%. The remaining consumption is accounted for by drinking at outdoor activities (5%) or when participating in sporting activities (2%), attending club or organizational meetings (2%), and attending concerts or sports events (1%). As seen in Table 6, the situational distribution of drinking is strongly related to drinkers' characteristics and level of consumption.[3] Among young, single Canadian males, a relatively high proportion of their alcohol consumption is in bars and taverns, and drinking in these venues is related to both high levels of consumption and to drinking problems.

Alcohol-Related Morbidity

Although alcohol dependence syndrome is a defined medical diagnosis, there is lack of consensus on the broader concept of alcoholism. However, the term alcoholic is generally used to describe people who have suffered any of a variety of major health or social problems as a result of alcohol use. The estimated prevalence of "alcoholism" in Canada in 1990 was 486,100 people or 1,900 per 100,000 population.[4] However, these estimates must be interpreted with caution, for they are calculated from the number of cirrhosis deaths and based on somewhat dated studies of the proportion of cirrhosis deaths attributable to "alcoholism." At best they are crude estimates of the number of Canadians who suffer severe problems as a result of alcohol use.

Data on people with alcohol-related health problems are limited to cases treated and reported by health care systems and thus do not include information from self-help groups, such as Alcoholics Anonymous, which constitute an important and vital component of treatment of the most severe alcohol problems. In 1989/90 there were 39,357 recorded alcohol-related hospitalizations in Canadian psychiatric and general hospitals—a rate of 124 per 100,000 populations.[5]

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Spirits	4.13	4.09	3.82	3.50	3.31	3.16	3.04	3.00	2.89	2.72	2.51
Beer	5.38	5.51	5.36	5.36	5.29	5.22	5.16	5.20	5.09	4.99	4.83
TOTAL	10.95	11.09	10.70	10.37	10.15	9.98	9.73	9.76	9.47	9.10	8.65

Source: Based on data obtained from the Public Institutions Division, Statistics Canada

proximately $921 million.[2] In 1990/91, alcohol provided $2.97 billion in revenue to provincial and territorial governments; in fact, alcohol represented the source of 2% of total provincial revenues. Federal revenue from alcohol sales was estimated at approximately $1 billion. The value of alcohol exports in 1990/91 was $621 million, compared to $599 million for alcohol imports. Spirits are the major type of exported alcohol. The value of beer imports has been increasing over the past 15 years.

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Data on people with alcohol-related health problems are limited to cases treated and reported by health care systems and thus do not include information from self-help groups, such as Alcoholics Anonymous, which constitute an important and vital component of treatment of the most severe alcohol problems. In 1989/90 there were 39,357 recorded alcohol-related hospitalizations in Canadian psychiatric and general hospitals—a rate of 124 per 100,000 populations.[5]

Alcohol dependence syndrome is the most common alcohol-related diagnosis, accounting for 46% of all alcohol-related hospitalizations. Of these cases, 72% are men. The syndrome is most common in men and women between the ages of 45 and 64; this group accounts for 36% of total alcohol morbidity. The median age for both men and women treated in either general or psychiatric hospitals for alcohol-related problems is 48 years.

Of alcohol-related hospital separations (or discharges from treatment) in provinces and territories, more than one-third (37%) occur in Ontario, a proportion that corresponds roughly to the province's share of the Canadian population. The highest per capita rates of alcohol-related hospitalizations are in Prince Edward Island (350.7 per 100,000 population) and Saskatchewan (235.3); the lowest rates are in Québec (114.8) and New Brunswick (117.1).[6]

Alcohol-Related Mortality

As shown in Table 7, there were 18,624 deaths attributable to alcohol in Canada in 1990, representing a rate of 70 per 100,000 population.[7]

Deaths attributable to alcohol in 1990 included 2,155 from cirrhosis and other liver disease (or 11.5% of all deaths attributable to alcohol); 605 from alcohol-related mental disorders (3.2%); 5,310 from alcohol-related cancers (28.4%); 3,755 from heart disease and other problems of the circulatory system (20.1%); 2,440 from diseases of the respiratory system (13.0%); 1,805 from motor vehicle crashes (9.6%); and 825 from accidental falls (4.4%).

The highest rate of alcohol-related death is in Prince Edward Island (82.1 per 100,000 population); the lowest rate is in the Northwest Territories (55.4). The relatively low rate in the Northwest Territories may reflect the tendency of some Southerners working in the North to return to the south on retirement or earlier or when medical treatment is needed.

Alcohol-Related Motor Vehicle Crashes

Although a number of indicators of impaired driving have declined over the past decade, alcohol-related motor vehicle crashes are still a major health and social problem in Canada. It is estimated that more than 1,800 Canadians were killed in 1990 in such crashes. Impaired driving is the single leading cause of death for young Canadians.

In 1990, 43% of all fatally injured drivers had some alcohol in their blood, 35% were beyond the legal limit of .08% blood alcohol concentration (BAC), and 27% were beyond .15% BAC.[8] However, these levels have declined over the past 11 years. Rates of impairment are particularly high among fatally injured drivers between the ages of 26 and 35.

In the 1990 Health Promotion Survey, one of five Canadians aged 15 or older reported driving after drinking in the past month. The practice is particularly high among men between 25 and 45, the well educated, and, not surprisingly, those with higher consumption levels.

Alcohol Offences

Alcohol availability is regulated by a combination of federal and provincial/territorial legislation. Each province/territory has an alcohol monopoly that controls sales of alcohol to varying degrees. Provincial/territorial licensing acts delineate the regulations governing conditions of sale (such as minimum drinking age), prohibitions against sale (such as to intoxicated persons), and the transport of alcoholic beverages. The legal drinking age is 19 in all Canadian provinces and territories except Québec, Manitoba, and Alberta, where it is 18 years.

Impaired driving is considered a criminal matter and thus falls within federal jurisdiction. It is an offence under the federal Criminal Code to operate a vehicle with a BAC of more than .08% or to fail to provide a breath or blood sample without reasonable excuse.

Although the number of provincial and territorial liquor act offences has been declining an average of 3.5% per year over the past 10 years, there were more than 220,000 such offences in Canada in 1991; they represented 65% of all offences reported under provincial statutes (excluding traffic offences). The rate of offences is highest in the Yukon, Northwest Territories, and Prince Edward Island and lowest in Québec. In 1991/92, a total of 5,766 Canadians were sent to prison for violating provincial and territorial liquor acts. They account for 8% of all inmates of provincial and territorial correction facilities.

Although drinking and driving offences under the federal Criminal Code have generally been declining in Canada since 1983, there were more than 140,000 such offences in 1991. The

TABLE 6: Proportion of total alcohol consumption in different settings, 1989

	Quiet evening at home	Visit with friends	At a restaurant	Bar or tavern	Parties, weddings, etc.	Other
TOTAL	18.1	30.2	12.7	11.9	15.9	11.2
SEX						
Male	20.1	28.0	11.0	14.1	13.7	13.1
Female	15.9	32.7	14.6	9.4	18.4	8.9
AGE						
15-19 yrs	6.1	29.5	5.8	21.0	27.1	10.5
20-24 yrs	8.3	26.1	10.0	27.3	15.2	13.0
25-34 yrs	16.8	30.3	12.8	13.7	14.6	11.9
35-44 yrs	22.3	29.9	14.3	8.2	14.5	10.7
45-54 yrs	22.4	28.1	16.7	7.4	13.3	12.1
55-64 yrs	23.7	32.2	13.2	3.3	18.1	9.4
65+ yrs	24.7	37.5	12.2	2.2	14.1	9.4
INCOME						
<$10,000	17.0	32.5	8.9	16.0	18.6	7.0
$10-19,999	17.7	33.8	10.1	13.9	16.2	8.3
$20-39,999	19.8	30.9	12.0	11.2	14.9	11.3
$40-59,999	18.8	29.2	13.8	9.9	15.7	12.6
$60,000+	16.7	28.8	16.7	11.9	13.1	12.7
EDUCATION						
<High school	20.5	31.5	8.8	9.8	18.8	10.5
High school	17.9	30.2	12.2	12.7	15.4	11.6
Some post-secondary	15.2	28.8	14.0	15.0	16.0	11.0
University degree	19.2	30.7	18.2	9.0	11.5	11.4
MARITAL STATUS						
Married	22.4	31.1	13.2	6.4	15.6	11.3
Separated	17.3	30.7	15.7	14.8	11.7	9.9
Divorced	16.7	28.9	15.8	14.8	13.7	10.1
Widowed	18.2	41.8	15.3	2.6	15.4	6.6
Single	10.1	27.2	10.6	23.1	17.2	11.7
CONSUMPTION LEVEL IN PAST YEAR						
Top decile	18.4	24.9	8.4	25.9	7.6	4.8
Rest of 1st quartile	21.9	27.1	9.6	16.4	9.4	15.5
2nd quartile	23.0	28.7	12.8	12.4	10.8	12.2
3rd quartile	24.2	32.1	12.7	8.6	12.9	9.5
Lowest quartile	5.4	33.6	15.9	6.6	30.6	7.9
FREQUENCY OF HEAVY DRINKING IN PAST YEAR						
Never	17.1	33.8	15.2	5.7	19.3	8.8
1-5 times	19.1	28.7	11.7	13.7	13.9	12.8
6-14 times	19.4	25.7	9.9	17.2	12.8	15.0
15+ times	18.2	23.2	7.4	27.7	9.9	13.5
ALCOHOL PROBLEMS IN PAST YEAR						
No problem	18.4	31.8	1.4	8.5	16.4	10.9
Had problem	17.7	28.3	11.0	16.1	15.3	11.7

Source: E. Single and S. Wortley, "Drinking in Various Settings as it Relates to Socio-demographic Variables and Level of Consumption: Findings from a National Survey in Canada," *Journal of studies on Alcohol* 54 (1993): 590-599.

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TABLE 7: Number and rate per 100,000 population of alcohol-related deaths, Canada and provinces/territories, 1990

	Total direct deaths[1]	Motor vehicle accidents	Other indirect deaths[2]	Total alcohol-related deaths	Rate per 100,000 population
NF	47	35	255	337	58.8
PE	12	15	80	107	82.1
NS	91	75	540	706	79.2
NB	45	65	385	495	68.4
QC	665	490	3,620	4,775	70.6
ON	1,139	480	4,910	6,549	67.3
MB	132	60	630	822	75.4
SK	79	75	595	749	74.9
AB	289	210	1,070	1,569	63.5
BC	425	285	1,755	2,465	78.7
YK	10	5	5	20	77.2
NT	5	5	20	30	53.4
Canada	2,959	1,805	13,860	18,624	70.0

[1] Deaths due to chronic liver disease and cirrhosis, alcohol-related mental disorders, and other direct causes.
[2] Deaths due to neoplasms, diseases of the circulatory and respiratory systems, falls, fire, drowning, suicide, and homicide.
Source: Statistics Canada, *Health Reports Supplement No. 11, 1991, Volume 4, No. 1—Causes of Death 1990* (Ottawa: Statistics Canada, Catalogue No. 82-003S11, 1992)

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Public Attitudes on Alcohol Issues

The 1990 Health Promotion Survey found that more than 75% of Canadian women and men believe it is appropriate to drink at a party in someone's home, at a bar with friends, with dinner at home, or when friends visit. Most also believe drinking only one to two drinks is more appropriate than drinking "enough to feel the effects." However, opinion is split about drinking at sports events or with friends after work, and the majority (59%) feel it is not appropriate to drink with co-workers at lunchtime. Women are more moderate than men, preferring no drinks or only one or two, rather than drinking enough to feel the effects.

Approximately one-sixth (16%) of current drinkers believe they would benefit from reducing their drinking. Older Canadians are somewhat less likely to perceive any benefit in reduced consumption. Male drinkers are twice as likely as female drinkers to perceive a benefit.

On policy issues, respondents in the 1989 National Alcohol and Other Drugs Survey generally support current controls on alcohol availability (Table 8). Most believe alcohol containers should have warning labels (74.4%) and that alcohol should not be sold in corner stores (73.6%). A slight majority (50.5%) favour a ban on alcohol advertising on television. Only one-third favour a ban on alcohol sponsorship of sporting and cultural events.

In the 1989 National Alcohol and Other Drugs Survey, most Canadians wanted government to increase health promotion and treatment activities, such as efforts to prevent serving drinks, prevention programs, treatment programs, and government advertising against drinking. Self-help programs, such as Alcoholics Anonymous, were considered to be moderately or very effective by most Canadians (79%), and most believed community prevention efforts (64.0%), emergency phone services (63.2%), and treatment by social workers or medical staff (60.3%) are also effective.

TOBACCO

Many fewer Canadians are smoking tobacco than in past years. The 1990 Health Promotion Survey indicated that 29% (or approximately 6 million Canadians) currently smoked, a decline of almost 50% since 1965. In 1991, cigarette sales per adult had declined almost as much, dropping to 2,192 cigarettes per person aged 15 or older in 1991 from 3,826 in 1981.

These figures do not reflect changes in smoking rates that may be brought about by reductions in taxes on cigarettes by the federal government in 1994. Preliminary indications are that there has been no overall change in the proportion of people smoking since 1991. The amount smoked also remains unchanged from 1991, at an average of

19 cigarettes per day. However, there has been an increase in the number of 15-19 year olds who smoke. This change will continue to be monitored with subsequent cycles of the survey.[9]

Smoking is most common among Canadians aged 25 to 44 (35%) and least common among those 65 or older (15%). Current estimates of the number of deaths attributed to smoking in Canada range as high as 38,000 per year. Environmental tobacco smoke (ETS) which refers to exposure to the tobacco smoke of others, endangers the health of both smokers and non-smokers. It is estimated that involuntary exposure to tobacco smoke causes at least 330 deaths annually in Canada.[10]

Rates of Smoking

The proportion of Canadians who reported smoking in various national surveys was almost 50% in 1965, 44% in 1975, 40% in 1981, 32% in 1989, and 29% in 1990.[11] In the 1990 Health Promotion Survey, 29% of respondents said they were current smokers, 35% were former smokers, and 36% had never smoked cigarettes.

In 1991, 46.8 billion cigarettes were sold legally in Canada:[12] 2,192 cigarettes per person aged 15 or older, or 21 cigarettes per day per smoker in Canada—a decline since 1985, when the average number smoked per day was 27. Nonetheless, smoking costs the average smoker an estimated $1,866.50 per year.[13] Of total tobacco sales, manufactured cigarettes account for about 85%, fine-cut tobacco for 14%, and cigar, pipe, and smokeless tobacco for less than 2%.

TABLE 8: Public opinion concerning alcohol and drug policy issues, Canada, 1989.

	Responses (%)			
	Yes	No	Don't know	Sample size (n)
Should alcohol be sold in corner stores?	23.4%	73.6%	3.1%	11,563
Should alcohol have warning labels?	74.4	22.5	3.1	11,563
Should government stop alcohol ads on TV?	50.5	43.6	5.8	11,565
Should government stop alcohol-sponsored events?	33.1	58.7	8.2	11,560
Should possession of marijuana be criminal?	54.4	35.3	10.3	11,540

Source: Health and Welfare Canada, M. Eliany, N. Giesbrecht, M. Nelson, B. Wellman, and S. Wortley, Editors. *National Alcohol and Other Drugs Survey* (1989): *Highlights Report* (Ottawa: Ministry of Supply & Government Services, 1990).

Economic Aspects of Tobacco

The number of people employed in the tobacco industry has declined substantially. From nearly 10,000 in 1977, there were only about 5,500 people employed in 1988 in processing and manufacturing various products, with salaries and wages totalling more than $230 million.

In 1990/91, the federal government received $2.38 billion in revenues from tobacco, and the provincial and territorial governments received an additional $2.67 billion. Taxes on a pack of 25 cigarettes ranged between $4.11 in Alberta and $5.05 in Yukon Territory. Until the early 198 Os, the real price of cigarettes relative to other items was actually decreasing. From the early 1980s until the tax decreases in 1994, cigarette price increases were far greater than increases in the prices of other items.

Characteristics of Smokers

Although Canadian men were once much more likely than women to smoke, men and women are now almost equally likely to be current smokers (31% vs. 28%). Moreover men are more likely than women to be former smokers (39% vs. 31%). Smoking is highest among those aged 25 to 44 (35%) and lowest among those over 65 (15%). People with relatively less education and lower incomes are more likely to smoke than people with higher education and incomes. However, among smokers, those with higher education and income tend to consume more cigarettes per day than those with relatively less education and income.[14]

Tobacco-Related Mortality

Data included in this section reflect estimates of deaths directly due to smoking and do not include various indirect effects of tobacco use. Using this approach, an estimated 35,717 deaths were attributed to smoking in Canada in 1990, a rate of 135.6 per 100,000.[15] The number is derived from deaths due to chronic bronchitis,

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TABLE 9: Number and rates of death per 100,000 population indirectly due to smoking, Canada and provinces/territories, 1990

	Number of deaths	Rate per 100,000	Rate per 100,000 aged 20+
NF	708	122.3	181.6
PE	228	158.9	228.5
NS	1,351	155.7	217.0
NB	979	139.0	196.7
QC	9,327	137.2	187.1
ON	13,234	139.6	191.9
MB	1,596	146.7	207.9
SK	1,487	143.5	209.6
AB	2,511	102.0	147.8
BC	4,261	136.8	187.0
YK	17	63.1	93.7
NT	21	39.6	67.5
Canada	35,717	135.6	1881

Source: Statistics Canada, *Health Reports Supplement No. 11, 1992 Volume 4, No. 1 - Causes of death, 1990* (Ottawa: Statistics Canada, Catalogue No. 82-003S11, 1992).

asthma, and emphysema and 30% of all deaths due to neoplasms, stroke, hypertension, and heart disease. Smoking-related death rates are highest in Prince Edward Island (158.9 per 100,000) and Nova Scotia (155.7) and lowest in Yukon Territory (63.1) and the Northwest Territories (39.6). The relatively low rates of tobacco-related death in the territories may in part reflect the tendency of some residents to return to the south when they retire or when medical treatment is necessary.

Attitudes Toward Smoking

In the 1990 Health Promotion Survey, asked whether selected health-related actions would improve their health and well-being, the vast majority of smokers (81%) said they believe they would benefit from quitting smoking.

LICIT DRUGS

Prescribed and Over-the-Counter Medications

Although use of medications has declined in Canada since 1985, it remains high, especially among older Canadians of both sexes; also, young women, in contrast to their practice with alcohol and illicit drugs, are more likely than men to use over-the-counter and prescription medications.

Patterns of Licit Drug Use

The 1993 General Social Survey of people in all provinces examined the use of ASA (e.g., Aspirin) and other over-the-counter pain relievers and five categories of prescription drugs: sleeping pills, tranquillizers, diet pills and stimulants, antidepressants, and narcotic pain relievers. Of all the drugs, ASA and other pain relievers are the most frequently used (69.8%). Of the prescription drugs, narcotic pain relievers (e.g., codeine, Demerol, morphine) are the group most commonly used, with 8.2% of Canadians reporting use in the past year. Sleeping pills and tranquillizers are used by 4.2% and 3.8% of the population, respectively.

Younger people tend to use ASA and other nonprescription pain relievers more than older people. Similarly, prescription narcotics are most commonly used by people aged between 25 and 34 (11.0%), but only 5.3% of people 75 or older. However, for all prescription drugs other than narcotics, use is generally associated with older age (Table 10). This pattern is particularly noticeable with tranquillizers and sleeping pills. The 1993 survey indicates that, among people between 65 and 74, 7.8% use tranquillizers and 9.2% use some form of sleeping pill. Among those 75 or older, 10.6% report using tranquillizers in the past month and 20.1% sleeping pills.

Although men are more likely than women to use alcohol or illicit drugs, women tend to use licit drugs more than men, including ASA and other pain relievers (75.1% vs. 64.2% for men), tranquillizers (4.3% vs. 3.3%), antidepressants (3.4% vs. 1.6%), sleeping pills (5.0% vs. 3.5%), and diet pills or stimulants (0.6% vs. 0.5%).

There is no clear pattern regarding licit drug use and income or education. It appears, however, that Canadians with relatively high education and income are more likely to use ASA but they are less likely to use tranquillizers, sleeping pills, and antidepressants.

Economic Aspects of Licit Drug Use

In 1990, approximately 20,000 Canadians were employed in the manufacture of pharmaceuticals and medications, with salaries and wages totalling more than $733 million. In the same year, the Canadian market for pharmaceuticals and medications was valued at approximately $4.3 billion.[16]

Problems Associated with Licit Drug Use

A number of problems are associated with the use of licit drugs. The metabolism of older people, for example, is less able to deal with medications, and older people are more vulnerable to side effects. Drug interactions also occur.

Some medications, such as narcotic pain relievers, stimulants and barbiturates, may be diverted to illicit drug markets. For example, in 1991, the number of reported prescription forgeries in Canada increased by 15.7% to 1,860; only four provinces recorded a decline during the year. Almost half of the forgeries involved prescriptions for codeine.

Unfortunately, information on morbidity and mortality related to the use of medications in Canada on a national scale is very limited. The international coding system used by Canadian hospitals (International Classification of Diseases, Version 9) categorizes cases according to general drug classes; since it does not distinguish between licit and illicit drugs, in many instances both licit and illicit drug problems are recorded in the same category. For example, a poisoning case involving illicit heroin and one involving a prescribed narcotic pain reliever would both be classified in the category of poisoning by analgesics, antipyretics, and antirheumatics involving opiates and related narcotics (ICD-9 965.0). Thus, a clear distinction between the health problems associated with use of licit and illicit drugs is not available.

TABLE 10: Use of ASA and prescription medications by demographic variables, Canada, General Social Survey, 1993

	% respondents using drug in past month					
	Aspirin	Tranquilizers	Sleeping pills	Codeine Demerol Morphine	Anti-depressants	Diet Pills
OVERALL MEAN	69.8%	5.8%	4.2%	8.2%	2.5%	0.6%
SEX						
Male	64.2	3.3	3.5	7.4	1.6	0.5
Female	75.1	8.3	5.0	9.0	3.4	0.6
AGE						
15-17 yrs	67.3	0.6*	0.5*	5.8	0.6*	1.0*
18-19 yrs	74.5	0.8*	0.6*	9.0	2.4*	0.5*
20-24 yrs	68.2	1.8	2.1	7.7	0.7*	1.3*
25-34 yrs	70.2	1.5	1.8	11.0	1.2	0.7
35-44 yrs	72.9	3.5	2.6	8.3	3.1	0.3*
45-54 yrs	70.6	4.3	4.4	8.4	4.0	0.2*
55-64 yrs	66.9	6.4	5.9	6.2	3.7	0.6*
65-74 yrs	66.1	7.8	9.2	6.5	2.8	0.5*
75+ yrs	67.0	10.6	20.1	5.3	3.3	0.5*
INCOME						
Lowest	63.7	7.8	7.1	8.7	5.5	0.6*
Lower middle	70.9	6.3	8.4	10.5	4.0	0.2*
Middle	71.0	4.7	4.4	8.6	2.6	1.0
Upper middle	71.5	3.1	3.2	9.1	2.3	0.7
Highest	74.8	2.5	2.8	7.3	1.0*	0.4*
EDUCTION						
Complete university	73.0	2.9	3.4	8.5	2.3	0.4*
Some post-secondary	70.8	2.6	3.6	9.3	2.6	0.7*
Secondary	69.2	2.9	2.6	8.0	2.1	0.5*
Less than secondary	66.0	6.2	6.5	7.4	3.0	0.8
MARITAL STATUS						
Single	67.0	2.8	2.1	8.3	1.8	1.0
Married or cohabiting	71.2	3.7	3.9	8.3	2.4	0.4
Divorced or separated	71.3	6.7	6.8	9.1	5.0	0.3*
Widowed	65.3	10.6	15.0	6.0	4.6	0.8*

* Data should be interpreted with caution due to high sampling variability.

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Although use of medications has declined in Canada since 1985, it remains high, especially among older Canadians of both sexes; also, young women, in contrast to their practice with alcohol and illicit drugs, are more likely than men to use over-the-counter and prescription medications.

Patterns of Licit Drug Use

The 1993 General Social Survey of people in all provinces examined the use of ASA (e.g., Aspirin) and other over-the-counter pain relievers and five categories of prescription drugs: sleeping pills, tranquillizers, diet pills and stimulants, antidepressants, and narcotic pain relievers. Of all the drugs, ASA and other pain relievers are the most frequently used (69.8%). Of the prescription drugs, narcotic pain relievers (e.g., codeine, Demerol, morphine) are the group most commonly used, with 8.2% of Canadians reporting use in the past year. Sleeping pills and tranquillizers are used by 4.2% and 3.8% of the population, respectively.

Younger people tend to use ASA and other nonprescription pain relievers more than older people. Similarly, prescription narcotics are most commonly used by people aged between 25 and 34 (11.0%), but only 5.3% of people 75 or older. However, for all prescription drugs other than narcotics, use is generally associated with older age (Table 10). This pattern is particularly noticeable with tranquillizers and sleeping pills. The 1993 survey indicates that, among people between 65 and 74, 7.8% use tranquillizers and 9.2% use some form of sleeping pill. Among those 75 or older, 10.6% report using tranquillizers in the past month and 20.1% sleeping pills.

Although men are more likely than women to use alcohol or illicit drugs, women tend to use licit drugs more than men, including ASA and other pain relievers (75.1% vs. 64.2% for men), tranquillizers (4.3% vs. 3.3%), antidepressants (3.4% vs. 1.6%), sleeping pills (5.0% vs. 3.5%), and diet pills or stimulants (0.6% vs. 0.5%).

There is no clear pattern regarding licit drug use and income or education. It appears, however, that Canadians with relatively high education and income are more likely to use ASA but they are less likely to use tranquillizers, sleeping pills, and antidepressants.

Economic Aspects of Licit Drug Use

In 1990, approximately 20,000 Canadians were employed in the manufacture of pharmaceuticals and medications, with salaries and wages totalling more than $733 million. In the same year, the Canadian market for pharmaceuticals and medications was valued at approximately $4.3 billion.[16]

Problems Associated with Licit Drug Use

A number of problems are associated with the use of licit drugs. The metabolism of older people, for example, is less able to deal with medications, and older people are more vulnerable to side effects. Drug interactions also occur.

Some medications, such as narcotic pain relievers, stimulants and barbiturates, may be diverted to illicit drug markets. For example, in 1991, the number of reported prescription forgeries in Canada increased by 15.7% to 1,860; only four provinces recorded a decline during the year. Almost half of the forgeries involved prescriptions for codeine.

Unfortunately, information on morbidity and mortality related to the use of medications in Canada on a national scale is very limited. The international coding system used by Canadian hospitals (International Classification of Diseases, Version 9) categorizes cases according to general drug classes; since it does not distinguish between licit and illicit drugs, in many instances both licit and illicit drug problems are recorded in the same category. For example, a poisoning case involving illicit heroin and one involving a prescribed narcotic pain reliever would both be classified in the category of poisoning by analgesics, antipyretics, and antirheumatics involving opiates and related narcotics (ICD-9 965.0). Thus, a clear distinction between the health problems associated with use of licit and illicit drugs is not available.

TABLE 10: Use of ASA and prescription medications by demographic variables, Canada, General Social Survey, 1993

	% respondents using drug in past month					
	Aspirin	Tranquilizers	Sleeping pills	Codeine Demerol Morphine	Anti-depressants	Diet Pills
OVERALL MEAN	69.8%	3.8%	4.2%	8.2%	2.5%	0.6%
SEX						
Male	64.2	3.3	3.5	7.4	1.6	0.5
Female	75.1	4.3	5.0	9.0	3.4	0.6
AGE						
15-17 yrs	67.3	0.6*	0.5*	5.8	0.8*	1.0*
18-19 yrs	74.5	0.5*	0.6*	9.0	2.4*	0.5*
20-24 yrs	68.2	1.8	2.1	7.7	0.7*	1.3*
25-34 yrs	70.2	1.5	1.8	11.0	1.2	0.7
35-44 yrs	72.9	3.5	2.6	8.3	3.1	0.3*
45-54 yrs	70.6	4.3	4.4	8.4	4.0	0.2*
55-64 yrs	66.9	6.4	5.9	6.2	3.7	0.6*
65-74 yrs	66.1	7.8	9.2	6.5	2.8	0.5*
75+ yrs	67.0	10.6	20.1	5.3	3.3	0.5*
INCOME						
Lowest	63.7	7.8	7.1	8.7	5.5	0.6*
Lower middle	70.9	6.1	8.4	10.3	4.0	0.2*
Middle	71.0	4.7	4.4	8.6	2.6	1.0
Upper middle	71.5	3.1	3.2	9.1	2.3	0.7
Highest	74.8	2.5	2.8	7.3	1.0*	0.4*
EDUCTION						
Complete university	73.0	2.9	3.4	8.5	2.3	0.4*
Some post-secondary	70.8	2.6	3.6	9.3	2.6	0.7*
Secondary	69.2	2.9	2.6	8.0	2.1	0.5*
Less than secondary	66.0	6.2	6.5	7.4	3.0	0.8
MARITAL STATUS						
Single	67.0	1.8	2.1	8.3	1.8	1.0
Married or cohabiting	71.2	3.7	3.9	8.3	2.4	0.4
Divorced or separated	71.3	6.7	6.8	9.1	3.0	0.3*
Widowed	65.3	10.6	13.0	6.0	4.6	0.8*

* Data should be interpreted with caution due to high sampling variability.

ILLICIT DRUGS

Rates of illicit drug use continue to decline in Canada, although there is some evidence that regular use of cocaine is becoming more common.

Rates of Use

Marijuana remains the most commonly used illicit drug in Canada. Nearly one million people—or 4.2% of those aged 15 or older—reported use in the preceding year in the 1993 General Social Survey of provinces. As for cocaine and crack, and heroin, LSD, and speed, Statistics Canada warns that, particularly in the provinces where numbers are very small, percentages relating to use must be interpreted with extreme caution. However, by comparison with figures for marijuana, it is estimated that only about 66,000 (0.3%) Canadians reported cocaine use in the preceding year, and the same proportion reported use of heroin, LSD, or speed.

More men than women use illegal drugs. For example, 5.7% of men compared to 2.4% of women reported using marijuana in the past year in the 1993 General Social Survey. Among users, men are more likely to report higher levels of use. Similarly, and again with the Statistics Canada proviso noted above, men are twice as likely as women to report using cocaine or crack (0.4% vs. 0.2%), or heroin, LSD, or speed (0.4% vs. 0.2%). Illicit drug use is most common among the young, with the use of marijuana and cocaine or crack most common among those aged 18 and 19 (13.1% and 1.7% current users, respectively), and the use of heroin, LSD, and speed highest among those aged 15 to 17 (1.9%).

Although national data are not available, provincial studies indicate higher rates of illicit drug use among students and street youth compared to the general population. A 1989 study of Ontario university students found the rate of current use to be 30.6% for cannabis, 4.5% for cocaine, 2.6% for LSD, and 7.4% for other hallucinogens. Crack and heroin are reported to be used by less than one-half of one per cent of university students. Among street youth, illicit drug use is considerably higher—92% report cannabis use, 64% cocaine, 39% crack, and 70% LSD—in another Ontario study conducted in 1992.[17]

Economic Aspects of Illicit Drugs

Given the illegal status of drugs in this category, it is not surprising there is a lack of reliable data on the size and value of the drug trade. However, the RCMP estimates street prices of illegal drugs at successive stages of trafficking. In 1990, the RCMP estimated the street-level price of various illicit drugs to be $35 to $50 for 0.1 gram of injectable (5%-6%) heroin, $70 to $225 for 1 gram of 60% pure cocaine hydrochloride, and $10 to $50 for 1 gram of Jamaican or Lebanese hashish.

Problems Associated with Illicit Drug Use

There are numerous health and social problems associated with illicit drug use. As with all drugs, there are health risks related to dose, repetition, route of administration, and characteristics of the user. However, there is little information regarding the incidence of related health problems.

A major methodological difficulty in estimating the magnitude of problems related to drugs is that of attribution. It is difficult to identify precisely the effects of any drug when its use is not the sole cause of a problem. A physical disorder or death may be recorded as "drug-related" because a drug is measurably present at the time of admission or in an autopsy. However, in such cases, the extent to which the drug is a contributing factor is unknown.

Because the International Classification of Diseases does not distinguish between licit and illicit drugs, statistics on drug-related morbidity and mortality include unknown numbers of cases that stem from the use of licit drugs. However, for "drug-related" disorders, there were 21,507 separations (or discharges from treatment) (82.0 per 100,000 population) from general and psychiatric hospitals in 1989/90. This rate has remained at virtually the same level since 1986. Approximately one-third (34%) of drug cases (not including alcohol or tobacco) are for mental disorders (psychoses, drug dependence syndrome, and nondependent abuse of drugs), and approximately two-thirds (64%) involve poisonings, primarily from prescription drugs. In 1990, 422 deaths in Canada were recorded as drug-related.[18] Mental disorders accounted for 12% of this total (51 deaths), and the remaining deaths involved various types of poisoning. Poisoning involving analgesics, antipyretics, and antirheumatics accounted for 40% of the deaths; poisonings involving antidepressants accounted for an additional 28%.

TABLE 11: Rates of federal drug offences per 100,000 population in Canada and provinces/territories, 1991

	Narcotic Control Act				Food and Drugs Act		
	Cannabis	Cocaine	Heroin	Other	Controlled	Restricted	Total drug-related offences
Canada	118.2	59.1	5.0	15.2	2.3	5.8	205.6
NF	101.5	6.7	0.4	1.9	1.4	5.3	117.2
PE	79.4	10.0	-	4.6	3.1	7.7	104.8
NS	137.1	28.1	0.3	27.1	5.3	10.6	208.6
NB	122.0	23.8	0.7	7.9	1.5	9.8	165.6
QC	52.6	59.9	3.0	14.5	0.2	2.3	132.4
ON	109.9	77.0	6.0	10.1	1.1	4.5	208.5
MB	125.2	19.1	0.5	4.6	1.6	6.8	157.9
SK	97.0	3.9	-	5.6	3.6	5.8	115.9
AB	143.0	30.4	0.9	11.5	2.6	8.7	197.1
BC	284.4	81.7	15.6	42.4	9.6	11.6	445.3
YK	615.2	93.5	7.2	10.8	-	36.0	762.7
NT	503.1	53.8	3.5	13.9	1.7	19.1	595.0

Source: Statistics Canada, *Canadian Crime Statistics* (Ottawa: Statistics Canada, Catalogue No. 85-205, 1992).
NB: Data on cocaine/crack, LSD, heroin and speed must be interpreted with caution

Drug Offences

The two most important federal statutes dealing with illicit drugs are the Narcotic Control Act (NCA) and the Food and Drugs Act (FDA), The NCA covers cocaine, cannabis, heroin, phencyclidine, opium, and other opiates. There are six common offences under it: possession, trafficking, possession for the purpose of trafficking, cultivation of opium or cannabis, importing or exporting, and "prescription shopping" (obtaining multiple prescriptions by visiting several doctors). Possession of any amount of a narcotic is an offence and there is no specified quantity required for a charge of possession for the purpose of trafficking.

Two sections of the Food and Drugs Act (FDA) concern nonmedical drug use. Part III of the act governs "controlled drugs," including amphetamines and other stimulants, barbiturates, and depressants. There are offences for trafficking, possession for the purpose of trafficking, and prescription shopping but not for possession. Part IV of the FDA governs "restricted drugs," including LSD, psilocybin, and DMT, with offences for trafficking, possession for the purpose of trafficking, and possession.

There are also other federal laws pertaining to illicit drugs. Amendments to the Criminal Code now make it illegal knowingly to import, export, manufacture, promote, or sell illicit drug paraphernalia or literature. There are also provisions against possessing property or other proceeds of crime and against "laundering" the proceeds of crime.

In 1991 there were more than 56,000 federal drug offences, a decline of 6.5% from 1990. In addition, in the same year, there were 3,249 juveniles convicted of drug offences. Offences involving cannabis accounted for 58% of the total and cocaine for 29%. Although heroin offences represented only 2.4% of the total in 1991, they increased consistently over the previous four years.

The highest recorded rate of drug related offences is in Yukon Territory (763 per 100,000 population) followed by the Northwest Territories (595, Table 11). Among the 10 provinces the highest rate is in British Columbia (445) and the lowest in Prince Edward Island (105).

Public Attitudes Toward Drug Policy

The 1990 Health Promotion Survey found that a slight majority (54%) of Canadians believe possession of marijuana should be a criminal offence, and 35% believe it should not (Table 8).

AIDS and Injection Drug Use

As of 1993, approximately 30,000 Canadian men and women were infected with HIV. About 8,232 of those had developed AIDS. Of these, 5,520 had died.[19]

Between 1985 and 1989, the incidence of AIDS cases in Canada increased dramatically, from 360 to 1,252 (Table 12). The number of cases has remained high since 1989; there were 1,127 AIDS-related deaths in 1992. Approximately 40% of AIDS cases occur in Ontario, 30% in Québec, 18% in British Columbia, and 6.4% in Alberta. In other parts of the country, the rate of AIDS cases is relatively low.

Injection drug users are particularly at risk of

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Injection drug users are particularly at risk of

TABLE 12: Number of AIDS cases and deaths, Canada, 1977 to 1992

	<1985	1985	1986	1987	1988	1989	1990	1991	1992
Known deaths	126	172	329	488	564	740	786	917	1,013
Cases	258	360	605	897	1,069	1,252	1,222	1,230	1,127

Source: Health and Welfare Canada, *Quarterly Surveillance Update: AIDS in Canada* (Ottawa: Health and Welfare Canada, HIV/AIDS Division, July, 1993).

AIDS. As has been shown in many cities in North America and Europe, the infection spreads rapidly among them.[20] Needle-sharing is a major factor in the spread of HIV: 7% of the AIDS cases in women, and 1% of cases in men, are attributed to injection drug use. The proportion of injection drug users who have become infected is 6% in Toronto, 3% in Vancouver, and 10% in Montreal.[21]

Apart from the risks of needle-sharing, injection drug users also tend to engage in high-risk sexual behaviours, thus increasing the risk of infecting not only other drug users but also non-using sexual partners.[22]

Until now, the proportion of AIDS cases attributed to injection drug use in Canada has been, by international standards, relatively low.[23] The most preferred illicit drugs, such as cannabis and cocaine, are more often smoked or sniffed. Use by injection of such drugs as heroin and cocaine is relatively rare. For that reason, and because needle exchange programs have become more common, the majority of AIDS cases in Canada have been contracted sexually. The proportion of cases involving injection drugs is, however, increasing. As of June 1993, 495 AIDS deaths in Canada had been linked to injection drug use.[24] Of these, 185 cases (141 men and 44 women) could be directly attributed to injecting drugs, and 293 cases involved men who injected drugs and were also homosexually/bisexually active.

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AT-RISK POPULATIONS

A CROSS-CANADA REVIEW

Street youth and school dropouts, women, seniors, Métis, Inuit and off-reserve aboriginal peoples, and impaired drivers—these people form the populations deemed in the second phase of Canada's Drug Strategy to be at special risk of harm related to alcohol and other drugs.

These at-risk populations vary in the kind and amount of research they have attracted to date and, indeed, in the relative ease with which research can be done. To find comparable studies in different jurisdictions across Canada is the exception rather than the rule. Definitions, subject samples, and methodologies vary. Thus, this section reports on work being done in each province and territory in Canada, from west to east, that touches in some way on at-risk populations—or on people who may be dose to being numbered among them. Most street youth, for example, were once students. Some specific regional approaches to what may seem to be small or local problems—but may be shared by many communities—are also included. Gambling problems and use of steroids and non-beverage alcohol are examples. Each provincial and territorial sub-section is clearly labelled, and the reports in the sub-sections all have titles indicating the issue being covered. All of these labels and titles also appear in the extensive Contents page and will be helpful to the reader interested in specific populations or issues.

The material in this section draws on and synthesizes research reports commissioned by Health Canada from all of Canada's provinces and territories, various additional studies they refer to, and selected other sources. Although Source Notes for material from each province and territory appear at the end of the section, the provincial and territorial reports themselves are more fully referenced—some include extensive bibliographies—and are available from the relevant provincial or territorial offices listed in the Appendix, or from Health Canada.

That advances in knowledge are being made among at-risk populations is a tribute to many workers at many levels. Significantly, however, and perhaps especially for these particular

populations, more women and aboriginal people than ever before are helping to shape the dialogue about what needs to be done, and how, and where, and when.

YUKON TERRITORY

Northern Drinking Patterns Differ ...

Yukon Territory, sitting on more than half a million square kilometres at the northwest corner of Canada, is the fastest-growing part of the country, with an 18% increase in population between 1986 and 1991. It is also the hardest-drinking area in Canada, with a continuing hold on the national record for the highest levels of alcohol consumption—14 litres of absolute alcohol per person aged 15 and over in 1991/92.

However, research now shows an important distinction between drinking in the small, geographically disparate communities of Yukon and drinking in southern Canada. The findings challenge the usefulness in the north of traditional southern-Canadian approaches to prevention, education, and treatment, and they suggest a need for reexamination of a range of related theories.

The distinction is in drinking patterns. In Yukon, 20% of the population drink some 80% of the alcohol, consuming in excess of 40 drinks per month. That is almost double the figure for southern Canada, where those in the equivalent highest-drinking sector (i.e. about 20%) of the population consume 21 drinks or more per month (1989).

In the Yukon Alcohol and Drug Survey (1990), 6% of respondents reported consuming 90 or more drinks per month, accounting for almost 50% of reported alcohol consumption. In southern Canada, only 3% drink more than 90 drinks a month, accounting for 30% of reported alcohol consumption.[1]

Patterns May Be Changing

Preliminary findings from the 1993 Yukon Health Promotion Survey, which was designed to allow results to be compared to those of the 1990 Yukon Alcohol and Drug Survey, suggest there may be some significant shifts taking place.[2] The 1990 survey showed increasing numbers of people abstaining from alcohol completely and another significant proportion drinking very heavily. The 1993 survey, however, shows an increase in light and occasional drinking, with a significant reduction in numbers of both former drinkers and heavy drinkers. Although the 1993 survey has not been fully analysed, researchers say new findings indicate:

- An increase in the current-drinker rate to 84% in 1993 from 77% in 1990.
- A drop in former-drinker rates to 13% in 1993 from 19% in 1990. The greatest decline appears to be among men and women aged between 35 and 44 and among those 55 or older.
- A drop in the percentage of people aged 15 to 19 who had never had a drink, to 6% in 1993 from 17% in 1990.
- Relatively little difference in current-drinker rates for men compared to women (86% and 83% respectively), in contrast to the provinces (85% and 77% respectively).

Aboriginal People and Sobriety

Although alcohol and other drug problems—whose complications include multigenerational alcoholism, sexual abuse, and family violence—continue to plague aboriginal people in Yukon, research there suggests that there has been an important move toward sobriety.[3] While continued and improved treatment and aftercare are key, the movement is expected to continue as land claims issues continue to be settled and aboriginal people progress to self-determination and self-government.

For now, despite high rates of consumption in Yukon, the drinking and nondrinking behaviours of native people are significantly different from those of non-natives. Native people, for example, are much less likely to have had a drink in the past 12 months; only 63% are current drinkers, compared to 81% of non-natives. Although non-native people are twice as common in light-drinker categories, and native people twice as common in heavy-drinker categories, native people are also twice as likely as non-natives to be former drinkers or abstainers.

Native Abstainers vs. Heavy Drinkers

In both the city of Whitehorse and the smaller outlying communities of Yukon Territory, the split between those aboriginal people who are high-volume drinkers and those who are abstain-

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

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ers (including former drinkers) is about even. However, more than 75% of aboriginal people in the smaller communities are at one of the two extremes—heavy drinking or abstaining—compared to about 50% of those in Whitehorse. In Whitehorse there are more current drinkers, but there are also more light drinkers. In the small communities, where so many aboriginal residents either drink heavily or not at all, the polarization of the two groups causes friction that affects the whole community.

Women and Drinking

Yukon women continue to have the highest current-drinker rate in Canada and it has jumped to 83% in 1993 from 76% in 1990.[4] Among men, the rate is 86%. Yukon women are not only as likely as Yukon men to be current drinkers, but also, in 1990, they reported drinking in greater volume than their southern counterparts in all age groups except 15 to 19, and they were three times as likely to be found in the heavy-drinking categories. Men exceed the southern averages in all age groups except 45 to 54. This age group is notable for having the highest reported consumption for women and the least difference in reported consumption between the sexes. On the other hand, in the 20 to 24 group, men report consuming twice as many drinks as women.

Fetal Alcohol Syndrome

A study by the Yukon government in 1991 suggested that although the incidence and prevalence of FAS/FAE (fetal alcohol syndrome/fetal alcohol effects) remain unknown, the rate of alcohol use in the territory, particularly by women, and the problem of low-birth-weight infants indicate that action is warranted without waiting for precise figures.[5]

Meanwhile, there appears to be a relatively high level of education on, concern about, and awareness of the issue in the territory. In the 1991 Yukon Alcohol and Drug Survey, 85% of respondents reported being concerned about drinking by pregnant women, and 92% disagreed with the statement "For a pregnant women, a couple of drinks on a regular basis is okay."

Drinking and Sex

Yukoners' rates of sexual activity are the highest in Canada: 83% of males and 78% of females report sexual intercourse in the 12 months preceding the 1993-Yukon Health Promotion Survey.[6] The comparable 1990 Health Promotion Survey results, which included just the provinces, were 78% for men and 69% for women. Yukon researchers suggest that the higher concentration of people in the 25 to 44 group, and the relatively low proportion of older people, likely affect the rates.

Of sexually active heavy drinkers, 63% reported having only one sexual partner; 37% reported two or more partners. In contrast, 91% of sexually active light infrequent drinkers reported only one partner. Of heavy frequent drinkers, 35% reported using condoms "always" or "most of the time" with their most recent partner. Also, 16% of heavy drinkers, compared to 13% of the general population, stated they had been tested for sexually transmitted diseases in the 12 months preceding the survey.

COLD COMFORT?

Do northerners drink because it is so cold and dark in the winter? Apparently not. Only 16% of current drinkers in Yukon report drinking more in the winter; just under half indicate they drink more in the summer. What they say is supported by seasonal variations in alcohol sales.[7]

NORTHWEST TERRITORIES

Massive Country, Few Data

The Northwest Territories (NWT)—the "top third of Canada"—occupy some 3.3 million square kilometres (1.3 million square miles). They encompass the magnetic north pole and more than 9% of the world's fresh water, and they touch the Arctic Ocean in the north and the Atlantic in the east. Some 57,650 people live in communities dotted across the expanse. The largest is Yellowknife, the capital, with about 15,000 people. Because of the difficulties involved in studying small populations spread across very large areas, the most recent national surveys did not include either the Northwest Territories or Yukon Territory. However, although data on substance abuse in those areas are very limited, data on alcohol sales are available.

Seven Liquor Stores in 3,300,000 Square Kilometres

The people of the Northwest Territories spend more money on alcohol—and drink more—than anyone else in Canada, except their neighbours in Yukon Territory.[8]

In terms of reported litres of alcoholic beverages consumed, provincial/territorial sales comparisons for 1990/91 indicate that per capita consumption in the NWT was 128.7 litres, compared to 207.8 litres in Yukon and an overall average in Canada of 115.4 in the same period.[9]

In 1990/91, the people of the NWT spent $812.70 per capita on alcoholic beverages (compared to close to $1,000 in Yukon), 71.7% higher than the Canadian average. As in the rest of Canada, the trend in the NWT to increasing per capita expenditures on alcohol continues. Indeed, between 1986/87 and 1990/91, the increase there was 17.4% compared to an overall increase of 9.2% across Canada in the same period.

The NWT Liquor Commission operates seven liquor stores, but it is the store in Yellowknife that sells by far the most. In 1992 it accounted for 48.7% of all the alcohol sales in the NWT—$13.8 million for that one store alone. In the same year, the Inuvik store brought in $4.4 million, Hay River $3.7 million, Iqaluit $2.6 million, Fort Smith $1.6 million, Norman Wells $1.2 million, and Fort Simpson $1.1 million.

Women, Drugs, and Fetal Growth

There have been no surveys looking specifically at patterns of alcohol consumption among women in the Northwest Territories. There has, however, been a survey of pregnant women in the northern NWT, which concluded that the prevalence of smoking and drinking warrants intensive countermeasures.[10]

The 1992 study surveyed and collected maternal and newborn measurements from 162 women who presented for prenatal care and who gave birth in Inuvik between September 1987 and January 1990: 56 of the women were Inuit, 38 Indian, 37 white, and 31 mixed race. In all, 64% of the women smoked, 57% ingested more than 300 mg of caffeine daily, and 34% drank alcohol during pregnancy. Smoking, caffeine use, and binge drinking were most frequent among the Inuit and Indian mothers. Smoking was associ-

BAFFIN INUIT LIFE EXPECTANCY

Life expectancy at birth among the Inuit of Baffin Island is 66.6 years, approximately 10 years less than that for the general Canadian population (76.3 years).[12] Leading causes of death are injuries and poisonings, neoplasms, and diseases of the respiratory system; for each cause, the rates for the Inuit are significantly higher than those for the Canadian population as a whole.

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ated significantly with decreased birth weight and length. Alcohol use, and especially binge drinking, was significantly associated with decreased head circumference.

Child and Spouse Abuse

Researchers in the Northwest Territories stress that alcohol abuse there contributes to many problems, including child and spouse abuse, school and work absenteeism, family breakdown, unemployment, crime, and suicides.[11] They suggest that as alcohol abuse continues, the affected children will also become alcoholic and, in turn, eventually affect their children in the same way. Binge drinking, particularly among males aged 15 to 30, is the main pattern of alcohol abuse throughout the territories.

Arctic Girls, Women, and Tobacco

By the time they are 19 years old, 71% of Inuit youth, 63% of Dene and Métis youth, and 43% of non-native youth in the Canadian Arctic are current cigarette smokers.[13] And generally, in each ethnic group and almost all age groups, the females have higher smoking rates than the males, with Inuit women 15 to 19 having the highest; 77% told researchers they were current smokers.

Of all adolescent regular smokers, about 12% smoke more than 15 cigarettes a day; among non-natives the percentage increases to 23%. Among both boys and girls, frequency is highest among non-natives, intermediate among Dene and Métis, and lowest among Inuit. In all ethnic groups, boys are more likely than girls to smoke more than 15 cigarettes per day.

Prevalence rates for use of chewing tobacco were generally lower among girls than boys in the three groups in a 1987 school survey.[14] However, Dene and Métis girls were an exception: 8% of those aged five to nine and of those 10 to 14 reported they were current users of chewing tobacco. Among boys, 7% of those aged five to nine, 12% of those 10 to 14, and 11% of those 15 to 19 chew tobacco.

As for snuff, in the total population, 4% of girls five to nine, 6% of those 10 to 14, and 3% of those 15 to 19 were current users, with prevalence rates highest in the Dene and Métis group. Among Dene and Métis girls, however, 13% of those five to nine, 20% of those 10 to 14, and 12% of those 15 to 19 were current users.

Smokeless Tobacco

An Arctic study notes that use of smokeless tobacco (snuff and chewing tobacco) was a traditional practice among some adult groups in the territories.[15] Beginning in the early 1950s with the visits of merchant supply ships, however, a commercial variety of the tobacco began to be used more widely. The study notes that the emergence since then of children and adolescents who become addicted during primary and secondary school years is of particular concern. Chemical analysis of smokeless tobacco samples from six countries revealed that moist snuff obtained in 1985 in Gjoa Haven, Northwest Territories, had the highest levels of cancer-causing tobacco-specific nitrosamines.

BRITISH COLUMBIA

Off-Reserve Problems for Aboriginal Peoples

Alcohol and drug problems far outstrip any others among British Columbia's aboriginal people living off-reserve and in Vancouver.[16] Survey data suggest their 10 most serious problems are:

1. Alcohol and drug abuse, 64.7%
2. Difficulty getting adequate housing, 22.4%
3. Unemployment, 18.3%
4. Prejudice and discrimination, 11.9%
5. Child abuse/neglect and apprehension, 8.3%
6. Culture shock adjusting to white urban environment, 8.3%
7. Lack of job opportunities and training, 8.3%
8. Poor self-identity, self-image, 7.3%
9. Inadequate financial resources, 6.9%
10. Lack of education, 6.4%

BC researchers note that the data cannot explain whether alcohol and/or other drug abuse is separate from, contributes to, or actually causes the other problems. However, they do see as interrelated such problems as early death, family violence, family breakup, child apprehensions, conflict with the law, serious financial worries and problems, and various health and mental problems. And they note the effects on children range from fetal exposure to alcohol (fetal alcohol syndrome) through to later exposure to emotional abuse and physical neglect in alcoholic homes.

Information on illicit drug use, as distinct from use of other drugs among aboriginal people in BC, is limited, and estimates vary widely.[17] However, the BC research team refers to a 1988 treatment needs study that echoed an observation made in a 1983 study by the Nuu-chah-nulth Tribal Council: "The evidence supports the common statement that alcohol and drug abuse affects 90% of the native people in BC. Abusers make up anywhere from 5% to 95% of the adult population of individual native communities, with 40% to 80% being the range of a majority of estimates."

The BC researchers also point to a 1989 study in which social support professionals listed a variety of services needed for native people living in Vancouver.[18] Almost all of the respondents identified the following interventions as very important:

- More support of sobriety from native leaders
- More networking of native health professionals and of native and non-native professionals
- Training of more native professionals in addictions
- Outpatient counselling for youths, families, couples, and individuals
- Youth recreation/activity programming
- Spiritual/cultural programming
- Rehabilitative recovery/halfway houses
- Intensive residential treatment for youths, families, and single adults

The existing service network is unable to meet the needs of people with mental illness as well as substance abuse problems, the researchers note.

Fetal Alcohol Syndrome

Among 586 children seen in a 1985 study in northwest BC, 92 were identified as having fetal alcohol syndrome or fetal alcohol effects. Of these 92 children, 82 were native.[19] Among the area's 3,300 native children, the prevalence was 25 per 1,000; in the same area's population of 23,440 non-native children, the prevalence was 0.4 per 1,000.

The study found that 10 of the 22 communities visited considered alcohol abuse a problem and that more native women (65%) than non-native women (9%) drank during their pregnancies. Children with both physical and developmental difficulties comprised a small but important proportion of people in every community.

Seniors

An unusual glimpse of chemically dependent seniors with coexisting complex medical and functional problems is provided in a study of the Victoria Innovative Seniors Treatment Agency (VISTA).[20] The study examined the characteristics and functional status of 419 clients referred between January 1989 and November 1990.

Clients ranged from 40 to 96 years old, with a mean age of 71.35 years. More than one-fifth were below 65 years. Most were single, divorced, or widowed, and most were female (58.2%). Close to 80% of all clients referred were considered chemically dependent. Among those admitted for treatment, 287 (68.5%) were diagnosed with alcohol problems, 40 (9.5%) with drug problems, and 24 (5.7%) with drug-alcohol interactions.

Among the 245 habitual drinkers, 61% had begun the habit in mid or late life. Of 86% reporting a history of binge drinking, 76% had begun in mid or late life. Of those readmitted, the largest category, 37.5%, were early-onset habitual drinkers. Both habitual and binge drinkers with early onset completed treatment with the poorest prognosis. Most of the older clients were affected by social isolation (58.2%) and physical health problems (55.2%). Close to half (47.3%) were affected by grief or loss, and about 25% were affected by housing, marital, and mental health problems.

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The BC researchers note that older people may be confused about what is a symptom of a health problem and what is a normal infirmity associated with aging; and misplaced pride, embarrassment, and fear can complicate the situation. At a meeting on medication and the older patient, caregivers in Vancouver were concerned about a range of problems experienced by seniors as a result of excessive or inappropriate use of medication.[21] They stressed that chief factors in poor compliance by seniors include:

- Sparse or too complex information
- Language problems
- Paternalistic or condescending treatment by professionals
- Caregiver reimbursement schedules that do not reflect the extra time and frequency of contact required to serve the older patient
- Pharmacists' lack of time and counselling skills

Drinking, Driving, and Cross-Border Shopping

Although impaired driving in British Columbia is down, researchers there note that it is not clear whether the drinking part of the equation has decreased.[22] One confounding factor is the effects of cross-border liquor purchases; to date, not even a rough estimate is available of the quantity of liquor purchased in the United States for consumption in BC. Nonetheless, between 1978 and 1988, there was a 50% reduction in traffic accidents causing injury or death in which alcohol was a primary factor, and new data indicate that the trend continues.

Although the number of people injured in all types of traffic accidents in BC between 1986 and 1991 increased by nearly 14% to 47,375, the number of people injured in alcohol-related accidents decreased by more than 7% to 5,276.[23] Similarly, although the number of people killed in all accidents in the same period increased by about 10%, the number killed in alcohol-related accidents decreased by more than 14%. The trend is evident across the province, with only the Courtenay, Kamloops, and Vancouver areas recording increases between 1986 and 1991.

ALBERTA

Native and Métis Deaths

Aboriginal people in Alberta experience significantly more problems with alcohol than do non-natives, suggest researchers there.[24] They point to two major research projects in the province that underscore their view. Although others provide more conservative estimates, a submission to the 1991 Task Force on the Criminal justice System and Its Impact on Indian and Métis People of Alberta suggests approximately 80% of aboriginal people in Alberta have problems with alcohol or other drugs.[25] Native people are also greatly overrepresented in the corrections system with respect to Liquor Control Act convictions: the Task Force also reports that in 1990, 21% of all sentences handed down to natives were for LCA violations, compared to 6% for non-natives.

The other study, by Alberta's Chief Medical Examiner for the Royal Commission on Aboriginal Peoples, compared rates of unnatural death for natives and non-natives in Alberta from 1986 to 1990.[26] Among key findings were:

- Two-thirds (67%) of natives who met unnatural deaths were drinking prior to death, compared to fewer than half (45%) of non-natives.
- Deaths involving evidence of alcohol or drug misuse as the primary cause were five times greater for natives than non-natives.
- The native suicide rate was two-and-a-half times greater than for non-natives; the accidental death rate was three times greater; and the homicide death rate more than eight times that of non-natives.

Although few studies have been done on illicit drug use by native and Métis people in Alberta, data from provincial correctional centres suggest that, for the most part, they use no more drugs than non-natives.[27]

Injection Drug Use and AIDS

Virtually all injection drug users entering drug treatment in Alberta know about HIV infection and AIDS and about how to protect themselves.[28] However, the majority continue high-risk behaviours. More than 65% do not use condoms regularly, 60% regularly use unsterile needles, 57% have multiple sexual contacts, and 54% have

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More heartening findings are that 57% of these users have undergone HIV testing, 66% have adopted some safer drug-use practices, and 40% say they are more careful about choosing partners and using condoms. The Alberta researchers note that at one end of the risk continuum is a relatively large number of people engaging in few risky behaviours, and at the other a small but significant number engaging in many.

Findings were similar in a 1992 pilot study exclusively among native injection drug users and based on 47 face-to-face interviews. Native users know the risks but continue to use unsterile needles, have multiple sex partners, and to not use condoms. They also believe they are at low risk for HIV infection and avoid using bleach to clean needles and syringes. (Their objections include the smell of the bleach, the time and effort required to clean the equipment, and the procedure's apparently making people "sick.") They also exchange new needles and syringes for drugs.

BODY BUILDING

Edmonton athletes interested in performance-enhancing drugs may be shifting to human growth hormones from anabolic steroids as a result of increasing testing for steroids, note Alberta researchers.[31] They also suggest that an emerging performance-enhancing drug may be erythropoietin, although there is no evidence it is widely used in Alberta. Human growth hormones and erythropoietin are derivatives of substances produced naturally by the body; currently no tests exist for detecting their presence.

Non-Beverage Alcohol

Tighter controls in Alberta on Lysol aerosol disinfectant, ethnic cooking wine, and "medicinal" tonic appear to have reduced use of all three non-beverage alcohol products.[29] The disinfectant has been the focus of concern in Alberta for more than a decade. A 1990 study showed that up to 500 people in Edmonton's inner city consumed it on a regular basis. A follow-up study in 1992 suggests there may be some moderation in use. The change is attributed to amendments in the province's Liquor Control Act, increased police activity, prevention and education activities, and earlier opening hours in the liquor control board store in the inner city.

When former disinfectant users switched to cooking wine and tonics, these beverages were also regulated by the Liquor Control Board and are now available only on special order.

Most non-beverage alcohols, including these three products (as well as mouthwash, aftershave shoe polish flavouring extracts and cough syrup), contain ethyl alcohol (ethanol) and are not poisonous. Some, however, are composed of other alcohols, such as isopropanol (rubbing alcohol), methanol (solvents, lacquer thinner), ethylene glycol (antifreeze, photocopying fluid), and methyl hydrate, which are highly toxic.

Treatment Centres See Cocaine Increase

The proportion of both adult and adolescent cocaine users in treatment in Alberta is increasing.[30] From 1986/87 through 1991/92, the proportion of adults in the provincial commission's treatment centres who use cocaine rose to 19% (5,220) from 2% (476). Treatment staff say that, compared to clients who do not use cocaine, clients who do are younger and more likely to be unemployed, to be multiple drug users, and to report using both alcohol and marijuana.

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a higher proportion of women than of men are cocaine users. Among those 18 to 19, the rate is 7% for women verses 3.7% for men; among those 20 to 29, it is 54.5% for women versus 41.6% for men. However, among clients 30 or older, men are more likely than women to use cocaine (43.6% vs. 32.6%), matching the apparent gender pattern in the general population.

SASKATCHEWAN

Multiple Addictions

Aboriginal people's representation among clients in alcohol and other drug treatment centres in Saskatchewan rose to 26% in 1988-89 from 15% in 1984-85.[32] Although alcohol continued to be a problem for virtually all of them, there was a shift from clients with alcohol problems alone to clients with "dual addictions." Between 1984-85 and 1988-89, the proportion of native people in treatment with alcohol problems alone decreased to 50% from 67% and the proportion with problems with alcohol and another drug increased to 46% from 31%. While the ratio of male to female aboriginal clients remained a fairly constant two to one, the percentage aged 19 and younger was increasing. By 1988-89, 62% were under 30; 24% were 19 and under, and 38% were 20 to 29.

Suicide

Fewer women than men commit suicide; however, research in Saskatchewan suggests that drugs are more often involved in women's suicide than men's.[34] In a study of 62 women and 210 men who committed suicide, some substance was involved for 79% of the women and 62.9% of the men. However, nearly half (46.8%) of the suicides by women involved drugs other than alcohol; 25.8% involved both drugs and alcohol; and 6.5% involved alcohol only. Among those of the men, by contrast, drugs alone were involved in only 12.4%; both alcohol and drugs in 15.2%; and alcohol only in 32.5%.

The Saskatchewan researchers note also that the involvement of alcohol and drugs varies with age. For example, the proportion of teen suicides involving alcohol and/or other drugs is 50%; for people in their 20s, 72.2%; and for people 30 or older, 66.7%.

Women in Treatment

More than 55% of women using treatment centres in Saskatchewan are under 30 years of age, 49% are aboriginal, and only 20% are employed. So notes a 1988-89 study by the province's then commission on alcohol and other drugs.[35] Of the women in treatment who are more than 19 years of age, 63% have not completed high school. The study, which analysed women's use of various inpatient and outpatient centres, detox centres, and halfway houses, examined 3,443 female admissions. They represented 29.6% of the 11,618 admissions over the course of the study.

In all, 50% of the women reported problems with drug dependency—4% with drugs alone and 46% with a combination of alcohol and other drugs. In the five-year period prior to the study, the proportion of women with combined alcohol and other drug problems increased by 10%. The women were most likely to report problems with prescription rather than illicit drugs. Tranquillizers were the most commonly abused (26%) and illicit drugs the least abused.

IMPAIRED DRIVERS

In 1992, 18% of alcohol-impaired drivers in motor vehicle crashes in Saskatchewan were women; 82% were men.[33]

MANITOBA

Runaways, Drugs, and AIDS

Young people living on the streets and in institutions for juvenile delinquents are at dramatically higher risk of drug problems than other young people, suggest Manitoba researchers.[36] Of seri-

6ous added concern is that street children downplay, or simply do not recognize, the dangers of unprotected sex and needle-sharing.

Among runaways and street children in Winnipeg, 76% abuse alcohol and other drugs and 46% engage in unprotected sex—more than three quarters of the latter for both pleasure (77%) and profit (34%). One-third have contracted a sexually transmitted disease, and of the 22% who use intravenous drugs, one-third admit to needle-sharing. Although 98% contend they have an understanding of AIDS and how it is transmitted (92%), 63% participate in high-risk sexual behaviours, and only 30% believe they are doing anything to put themselves at risk.

In another population of at-risk youth—institutionalized juvenile delinquents-86% have tried marijuana at least once, 80% currently use it, and 66% report getting high on it more than once. Almost half of this population report using marijuana a few times a week when it is available and are also active solvent sniffers. Among juvenile probationers, the drug of choice is alcohol. Unlike institutionalized delinquents young probationers use a combination of alcohol and other drugs more frequently than they use marijuana (10.6% vs. 1.4% in 1990/91).

Drug Use by Women Prostitutes

Some 84% of women working as prostitutes in Winnipeg use illicit drugs, often in combination with alcohol. More than half of them say they would like to quit drugs.

Manitoba researchers cite two studies.[37] One study found that the women are mostly Caucasian, are under 25 years of age (70%), and have less than a Grade 9 education. Many report using drugs to be able to work. In the other study, 26% of the women reported using drugs hourly, 32% daily, and 32% weekly. Of the many drugs they use, marijuana is most common (79%). Others are Talwin-Ritalin combinations (68%), hash (63%), cocaine (53%), and heroin (11%). Although 26% of the women consider they have a drug problem, only 11% have ever tried a drug program, and 74% say they do not know where to go for assistance. Yet 53% say they would like to get off drugs, and 11% say maybe they would; 32% say they would not.

Native People in Manitoba

Between 6% and 7% of the population of Manitoba is of native origin; an estimated two-thirds live on reserves administered by about 60 bands. There are three key language groups and five major dialects.[38] However, Manitoba researchers say that, with two exceptions, there is little documentation on alcohol or other drug use among Manitoba natives, particularly adults.

PARENTS MAY APPROVE

In a Manitoba study of suburban school youth, 60% of students reported that their parents were aware of their chemical use and 46% believed that their parents approved. In fact, 25% of the parents polled did approve of their child's use of alcohol; 1% approved of their child's use of street drugs.[42]

One of the two exceptions cited is a national study by the National Association of Friendship Centres of Canada in 1985.[39] It reported that from 24% to 100% of clients attending the centres had a substance abuse problem; most centres estimated that 50% or more of their clients fell into the group. Findings for Manitoba paralleled the national figures.

The second exception is data from provincial addictions treatment agencies, which show a disproportionate number of native clients. From 1987 through 1991, for example, approximately 40% of all clients in treatment in Manitoba were of native origin. The percentage remained constant for the four years and is close to the projected rate for the rest of Canada.

a higher proportion of women than of men are cocaine users. Among those 18 to 19, the rate is 7% for women verses 3.7% for men; among those 20 to 29, it is 54.5% for women versus 41.6% for men. However, among clients 30 or older, men are more likely than women to use cocaine (43.6% vs. 32.6%), matching the apparent gender pattern in the general population.

SASKATCHEWAN

Multiple Addictions

Aboriginal people's representation among clients in alcohol and other drug treatment centres in Saskatchewan rose to 26% in 1988/89 from 15% in 1984/85.[32] Although alcohol continued to be a problem for virtually all of them, there was a shift from clients with alcohol problems alone to clients with "dual addictions." Between 1984/85 and 1988/89, the proportion of native people in treatment with alcohol problems alone decreased to 50% from 67% and the proportion with problems with alcohol and another drug increased to 46% from 31%. While the ratio of male to female aboriginal clients remained a fairly constant two to one, the percentage aged 19 and younger was increasing. By 1988/89, 62% were under 30: 24% were 19 and under, and 38% were 20 to 29.

Suicide

Fewer women than men commit suicide; however, research in Saskatchewan suggests that drugs are more often involved in women's suicide than men's.[34] In a study of 62 women and 210 men who committed suicide, some substance was involved for 79% of the women and 62.9% of the men. However, nearly half (46.8%) of the suicides by women involved drugs other than alcohol; 25.8% involved both drugs and alcohol; and 6.5% involved alcohol only. Among those of the men, by contrast, drugs alone were involved in only 12.4%; both alcohol and drugs in 15.2%; and alcohol only in 32.5%.

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Native Children and Inhalants

Excluding alcohol, the primary drugs used by native children under 12 are inhalants (glue, gas, Lysol, typewriter correction fluid, plastic wood, and solvents such as nail polish remover).[40] Young natives from 13 to 18 use the same substances but they also use prescription drugs, nonprescription drugs, street drugs, hairspray, antifreeze, sleeping pills, rubbing alcohol, melted vinyl records, and magic mushrooms. For adults, after alcohol, the focus is more on street drugs and substances containing alcohol.

Manitoba's Multiple Prescription Plan

Manitoba saw a 34% reduction in prescriptions for "monitored" drugs in the first year of operation for the province's Multiple Prescription Program (MPP).[41] Greatest reductions were in prescriptions for pentazocine, phenobarbital with codeine, methaqualone, diphenoxylate, and hydrocodone. Conversely, the top five monitored drugs prescribed in 1991 were butalbital with codeine, oxycodone HCl, hydrocodone bitartrate, codeine phosphate, and morphine sulphate. Although use of most of the monitored drugs decreased, the increase in use of morphine-containing products is considered positive as it signifies "an increasing awareness among physicians of the need to adequately control pain in cancer patients."

The program was set up in 1990 to identify consumers whose drug use requires intervention, prescribers who may require reeducation and intervention, and trends in use of specified prescription drugs. It requires physicians, dentists, and veterinarians who want to prescribe from a list of narcotic, barbiturate, stimulant, and controlled drugs to use a prescriber-specific pad. The pad allows consumer, prescriber, and dispenser activities to be computer monitored by the College of Physicians and Surgeons of Manitoba. Benzodiazepines (tranquillizers) and certain codeine compounds are not included on the list of monitored drugs because of the high volume of data they would require the program to process.

Biases May Linger

Community health professionals may abandon their expertise and use cultural, ethnic, and sexual biases to identify female problem drinkers, suggests a Winnipeg-based study.[43] The people most likely to refer problem drinkers to treatment were surveyed to examine knowledge and attitudes towards chemically dependent women. The survey found that 7% of respondents believe chemical dependency is a moral weakness, and 15% believe it is a personality flaw. Still others "recognize" chemical dependency on the basis of unkempt physical appearance—particularly if the client is female.

Fetal Alcohol Syndrome

In Manitoba, studies conducted since 1983 suggest that the incidence of fetal alcohol syndrome could range from 35 to several hundred annually. A study in 1990 pegged the minimum incidence at one Winnipeg teaching hospital at five per 1,000 live births.[44]

ONTARIO

Students' Drug Use and Attitudes Shifting Again

Steady declines in student drug use over the last decade may have come to an end, suggests research in Ontario.[45] The 1993 Ontario Student Drug Use Survey, which examines use of alcohol and other drugs by Ontario students in Grades 7, 9, 11, and 13, is the first since 1979 in which the number of drugs whose use increased was greater than the number of drugs whose use declined. The survey also indicates a significant shift in the attitudes of younger students: between 1991 and 1993, for example, Grade 7 students who "strongly disapproved" of using cocaine once or twice dropped to 48% from 60% and of using cannabis once or twice to 49% from 58%.

The researchers note that it is too early to tell if the results signal the beginning of a new increase in drug use. However, between 1991 and 1993, there were increases in use of solvents to 2.3% from 1.6%; in "ecstasy" (MDMA) to 1.6% from 0.3%; in medical use of stimulants to 4% from 2.6%; and in nonmedical use of barbiturates to 3.0% from 2.2%. The percentage of students who had injected drugs dropped to 5.4% from 7.1% in 1990.

Increases in use were more common in the younger (Grade 7) students and among males. In particular, among Grade 7 students, tobacco use rose to 9.4% from 6.1%, glue sniffing to 3.2% from 1.1%, and cannabis use to 1.7% from 0.7%. Among males, LSD use rose to 8.1% from 5.9%.

Despite the increased use of several drugs, however, rates of use for all of the 17 substances included in the survey are significantly lower in 1993 than in the late 1970s and early 1980s. And use of the three most widely used drugs—alcohol, tobacco, and cannabis—all declined significantly between 1977, when the biennial surveys began, and 1993. Alcohol use fell to 56.5% from 76.9%, tobacco to 23.8% from 34.7%, and cannabis to 12.7% from 31.7%. Among the total sample, the percentage using these drugs showed no significant changes between 1991 and 1993. The percentage of students who use no drugs (including alcohol and tobacco) has remained stable—at 36.4%—since 1991, compared to 17.4% in 1979.

Impaired Driving

About 34% of Ontarians have been in a car with an impaired driver; 5.7% have been in an accident because of someone else's drinking.[46]

Socioeconomic Status and Smoking

Use of alcohol and other drugs, including tobacco, knows no social or economic boundaries. Nonetheless, income bracket, employment group, and occupational status play some role in consumption patterns, suggests Ontario research.[48]

In Ontario households with incomes of less than $40,000 a year, for example, there are more cigarette smokers and heavier smokers. In households with incomes of more than $60,000 a year, there are more lifelong nonsmokers and former smokers. The higher-income group also has the lowest proportion of both moderately heavy (11 to 25 a day) and heavy smokers (more than 25 a day). There is a similar relationship between education and smoking: former smokers, on average, have more formal education than current smokers.

As for occupational status, students are most likely never to have smoked (74.2%) and, of all groups, are most likely to smoke no more than 10 cigarettes a day. The greatest proportion of people who have never smoked are retired (or in unclassified "other" occupational groups). Of the 19.7% of people who smoke from 11 to 25 cigarettes per day, more than one-quarter are people looking for work.

Notably, among people who smoke 11 or more cigarettes a day, almost one-third (32.1%) are people keeping house, followed by blue-collar workers (31.3%), people in managerial or professional occupations (27.1%), and students (5.6%).

Alcoholics Anonymous Favoured

For people seeking help for alcohol-related problems, Ontarians consider Alcoholics Anonymous (AA) to be by far the best place to go: 70.4% of people surveyed had recommended AA or similar self-help groups to someone.[49] The next choice—recomended by 18.1% of respondents—was a doctor or nurse. After self-help groups and medical professionals, respondents had recommended a family member or friend (12.3%), a psychologist or psychiatrist (10.5%), an addiction agency (8.3%), or a minister, priest, or rabbi (6.8%). Fewer than 5% had recommended a hospital or emergency department, a detox centre or halfway house, or a psychiatric hospital.

Respondents were less certain about services for drug-related problems; 28% had recommended

FIVE REASONS TO SAY NO TO ALCOHOL

Women in Ontario quit drinking primarily because they are pregnant, in training, or dieting (52.2%).[47] Health reasons are reported next (26.5%), and 20.4% quit because they feel they drink too much. Ontario men, on the other hand, cite health reasons first (33.2%), drinking too much (29.8%), and training or dieting last (23.7%).

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a doctor or nurse, and 23.9% had suggested support groups. Almost 23% said they had referred people to an addiction agency for drug treatment, but only 8.3% had referred someone with a drinking problem to such an agency.

Asked what services they had actually used for an alcohol or other drug problem, 2.2% responded, citing AA or similar groups.

QUÉBEC

Drugs in Detention Centres

Inmates in provincial detention centres may have a much higher rate of drug dependency than is believed to be the case in federal penitentiaries, Québec researchers suggest. In Québec, as in Ontario and British Columbia, almost half of federal inmates are considered free of drug dependence.[50] About 35% are believed to have a limited or moderate dependence, about 12% a "high" dependence, and between 2% and 6% (depending on the province) serious dependence on at least one drug.

The Québec research indicates a significantly lower rate of freedom from drugs among inmates in provincial detention centres.[51] Among 94 women studied, research suggests that 45% have a high or serious risk of dependency on at least one drug and 29% have a limited or moderate risk. Among 130 men, it suggests that one-third have a high or serious risk of dependency and 45% have a limited or moderate risk. Thus, about 26% of women and 18% of men in Québec detention centres can be considered free of any likely drug dependency.

Inhalants: The First Drug

Inhalants were the first drugs (excluding alcohol and tobacco) they ever used, reported both women and men inmates of Québec provincial detention centres.[52] The only gender difference is that boys started between 13 and 14 and girls between 15 and 16. Solvents were generally followed by cannabis, usually between 15 and 16 for both boys and girls, and then by hallucinogens at around 17. On average, inmates tried cocaine and heroin for the first time around age 21.

A surprising finding among women inmates is the higher use rate for cocaine than cannabis derivatives. Although equal numbers have used both drugs, more had used cocaine in the year and in the month preceding incarceration. In fact, more than 50% of these women were cocaine users (use in the month preceding incarceration). More than 50% had also tried hallucinogens at least once; 25% of them were using hallucinogens in the year preceding incarceration.

Unlike young people in detention centres, adult women inmates show no special interest in solvents, but 15% had used heroin in the month preceding incarceration.

Other findings in the detention centres were:

- Violent crime was nearly three times more common among women who had taken one or more drugs on the day of the crime for which they were incarcerated (41%) than among women who had taken no drugs on the day (15%).
- Although the majority of women inmates do not commit offences to obtain drugs, some 35% do. (Among men, for whom there are more specific data, 40% committed thefts to obtain drugs, 30% sold drugs, and 25% committed fraud or received stolen goods.)

Young People in Detention

About 75% of young people in detention centres in Québec have tried cannabis, cocaine, or hallucinogens; one-third have tried solvents; about 25% have tried amphetamines; and 13% have used heroin.[53] With the exception of cannabis, slightly more girls than boys have tried these drugs at least once.

In the year before the survey, slightly more than 60% of youth placed in detention centres used cannabis, almost 40% used cocaine or hallucinogens, and between 10% and 20% used solvents, amphetamines, or heroin. In the month before the 1989 survey, whether in or out of a detention centre, slightly under 30% used cannabis, 11% used amphetamines, 8% cocaine, 6% solvents, and 4% heroin.

Cree People and Illicit Drugs

The Cree in northern Québec use significantly more illicit drugs than southern Québecers, suggests Québec research in the James Bay region.[54] In general, and as elsewhere, marijuana and hashish are tried at least once by the largest number of both men (45.3%) and women (31.3%), compared to 21% for southern Québecers.[55] The same is true for cocaine or crack: 8% of Cree report use—twice the level for the rest of Québec.

(Statistics Canada advises that owing to high sampling variability, figures for cocaine and crack use should be interpreted with caution.)

As elsewhere, use of illicit drugs in the past year among the Cree is a phenomenon of youth; current use after about 45 years of age is almost nonexistent. The largest user groups are those 15 to 19 and 20 to 24. Solvents are more popular than cocaine and crack among those 15 to 19, but that preference reverses among those 20 to 24. For all ages, however, marijuana and hashish are the most popular illicit drugs.

At the time of the survey, the research notes, the Cree in James Bay numbered 9,300 people in nine communities—five on the shores of James Bay and Hudson Bay and four inland. Some 60% of the population are under 25; the median age is 21, which contrasts with a median age of 34 among southern Québecers.

Impaired Driving

Québec drinkers appear to be less concerned about driving after drinking than other Canadians. Although there are no significant differences from other jurisdictions in types of drinking or volume of alcohol consumed, 40.5% of Québecers, compared, for example, to 55.9% of British Columbians, believe drinking and driving is a problem.[56] And drinkers themselves, although they less often view it as a problem, do drink and drive (which is not synonymous with driving drunk). Some 22% of drinkers aged 15 or older report driving within the hour after having two drinks, compared with 16% and 17% respectively in Ontario and British Columbia. The Canada Health Promotion Survey (1990) found that 20% of all Québecers (28% of drinkers) report driving within two hours after drinking any amount in the past 30 days.

However, only 4.1% of Québec drinkers had experienced police contact due to drinking in the year before the 1989 survey, compared to 6.4% of Ontarians, 9.8% of British Columbians, and 6.9% of Canadians overall.[57] Researchers note that it is difficult to determine if this low figure is attributable to differences in police enforcement or in drinker conduct.

NEW BRUNSWICK

Seniors and Alcohol

Among people aged 60 or older in New Brunswick, 3% drink alcohol daily, according to a telephone survey of seniors in the province.[58] The 1988 survey of 652 people 60 or older also found that 9% drink once a week, 6% two or three times a week, and 2% four to six times a week. Of the 68% of people who had consumed alcohol at some point in their lives, 46% said they had done so in the year prior to the survey. Some 14% said they drink less than once a month, and 12% once or twice a month.

High School Students and Impaired Driving

Nearly one-quarter (24%) of New Brunswick high school students who drive reported having driven within an hour after having two or more drinks, according to a 1989 study in the province.[59] The study identified behaviours associated with problem drinking. Of students reporting, 30% said they had been on a weekend drinking spree at least once, and 14% said they had a drink before breakfast. Of students who drive, 5% had been in an accident after drinking, and 3% had been convicted of a DWI (driving while impaired) offence.

Approximately one-sixth (16%) of all respondents who had reported drinking any alcohol said they had behaved aggressively while drinking; 11% said they had been warned by police about their alcohol consumption; 6% said their drinking worried their parents; and 3% said they had seen a doctor with a related problem.

The most common reason for having tried alcohol was "to see what it was like" (41%). Another 15% drank because their friends drank, and 12% said it seemed like a "fun thing." In addition, 4% used it to "escape worries," 3% because they "had nothing else to do," and 1% "to feel good."

More Liquor Outlets

Over the next three years, New Brunswick will be moving more and more alcohol sales from the public to the private sector. The provincial finance minister has announced that the 77 current provincial liquor outlets will be reduced to be-

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tween 45 and 55 and, at the same time, the network of private outlets will be increased to about 70 from the current 31. The government says its research shows that over five years the plan should save $10 million, and meanwhile will bring better service and tax savings to the public. The government has promised that any provincial liquor outlet that is the only one in a region will not close until a replacement is ready for business.[60]

NOVA SCOTIA

Youth and Gambling

Close to 12% of young people aged 13 to 17 in Nova Scotia show some signs of possible "problem" or possible "pathological" gambling, suggests a 1993 survey commissioned by the Drug Dependency Services division of the province's Department of Health.[61] Possible problem gambling is significantly higher among youth than adults (8.7% vs. 3.1%), and possible pathological gambling is slightly higher, although the difference is not statistically significant.

The study warns that the social costs of gambling problems, if unattended, could be enormous, but it stresses that further research is needed of a larger sample of young people and of motivations to gamble among both youth and adults.

The province-wide telephone survey of 300 randomly selected adolescents was part of a larger examination of the prevalence of gambling in Nova Scotia. Results for adults were much the same as for a similar study of adults in New Brunswick, which was commissioned by that province's department of finance. Concern about gambling, as governments extend or consider extending such activities, is partly driven by some United States studies suggesting a high correlation between gambling problems and misuse of alcohol and other drugs.

The Nova Scotia study suggests that video arcade games surpass in popularity all other gaming activities for possible problem and probable pathological gamblers. Approximately 30% to 33% had played two or more times a week in the past year. A multiple regression analysis looking at all gambling activities and video games concluded that video gambling is the strongest predictor of problems in adolescent gamblers; video games, playing cards for money, and playing pool or other games for money were all weakly linked to gambling problems.

Gambling among adolescents began at age 13 with possible problems showing at 14 and signs of pathology emerging by 15. Boys were more likely than girls to fall into problem categories, but only slightly more likely to be possible pathological gamblers. Unlike adult gamblers, adolescents with signs of problems are not knowledgeable about gambling myths; they are more likely to think they can "beat the odds" and that compulsive gambling is a "bad habit anyone can control."

Multiple Drug Use Popular Among Adolescents

The overlap of alcohol, tobacco, and cannabis use by students is striking, and prevention programs should deal with the three drugs as a group rather than independently. Practically speaking, most students who smoke tobacco, and all students who use cannabis, also drink alcohol.

The finding—and implication for policy and prevention—is from research on student drug use in Nova Scotia.[62] The research surveyed young people between 12 and 18 years of age in Grades 7, 9, 10, and 12 and also contains some pointers for prevention of inhalant and prescription drug use by students.

About 9% of students in Nova Scotia use solvents, and 4% use glue. The rates are four times higher than observed in Ontario students in 1991. That fewer than 1% use on a monthly basis suggests many are experimenting. However, be-

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tween 45 and 55 and, at the same time, the network of private outlets will be increased to about 70 from the current 31. The government says its research shows that over five years the plan should save $10 million, and meanwhile will bring better service and tax savings to the public. The government has promised that any provincial liquor outlet that is the only one in a region will not close until a replacement is ready for business.[60]

NOVA SCOTIA

Youth and Gambling

Close to 12% of young people aged 13 to 17 in Nova Scotia show some signs of possible "problem" or possible "pathological" gambling, suggests a 1993 survey commissioned by the Drug Dependency Services division of the province's Department of Health.[61] Possible problem gambling is significantly higher among youth than adults (8.7% vs. 3.1%), and possible pathological gambling is slightly higher, although the difference is not statistically significant.

The study warns that the social costs of gambling problems, if unattended, could be enormous, but it stresses that further research is needed of a larger sample of young people and of motivations to gamble among both youth and adults.

The province-wide telephone survey of 300 randomly selected adolescents was part of a larger examination of the prevalence of gambling in Nova Scotia. Results for adults were much the same as for a similar study of adults in New Brunswick, which was commissioned by that province's department of finance. Concern about gambling, as governments extend or consider extending such activities, is partly driven by some United States studies suggesting a high correlation between gambling problems and misuse of alcohol and other drugs.

The Nova Scotia study suggests that video arcade games surpass in popularity all other gaming activities for possible problem and probable pathological gamblers. Approximately 30% to 33% had played two or more times a week in the past year. A multiple regression analysis looking at all gambling activities and video games concluded that video gambling is the strongest predictor of problems in adolescent gamblers; video games, playing cards for money, and playing pool or other games for money were all weakly linked to gambling problems.

Gambling among adolescents began at age 13 with possible problems showing at 14 and signs of pathology emerging by 15. Boys were more likely than girls to fall into problem categories, but only slightly more likely to be possible pathological gamblers. Unlike adult gamblers, adolescents with signs of problems are not knowledgeable about gambling myths; they are more likely to think they can "beat the odds" and that compulsive gambling is a "bad habit anyone can control."

Multiple Drug Use Popular Among Adolescents

The overlap of alcohol, tobacco, and cannabis use by students is striking, and prevention programs should deal with the three drugs as a group rather than independently. Practically speaking, most students who smoke tobacco, and all students who use cannabis, also drink alcohol.

The finding—and implication for policy and prevention—is from research on student drug use in Nova Scotia.[62] The research surveyed young people between 12 and 18 years of age in Grades 7, 9, 10, and 12 and also contains some pointers for prevention of inhalant and prescription drug use by students.

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cause of their toxicity, inhalants are a potential problem in Nova Scotia, and prevention strategies targeting students at high risk may be possible. Identified risk factors for inhalant use in Nova Scotia include being a young age and having a grade-point average below 60%.

As for prescription drugs, about 6% of all Nova Scotia students use tranquillizers prescribed by their physicians—a prevalence twice as high as in Ontario—with female students at 1.5 times the rate of males. Other independent risk factors are use of prescribed stimulants or prescribed barbiturates. Prevention strategies should focus not only on adolescent behaviour, but also on physicians' prescribing patterns.

Although 39% of all Nova Scotia students do not use drugs, and 44% do not use alcohol, tobacco, or cannabis, some 7% experience three or more alcohol-related problems and could be seen as being in need of treatment and rehabilitation. Cannabis and tobacco use are independent risk factors for more alcohol problems.

Street Drugs in the Maritimes

In 1990, 68% of all cannabis confiscated by law enforcement authorities in Canada was accounted for by two major seizures in Nova Scotia.[63] Both seizures involved hashish, the first shipment weighing in at 31,813 kg and the second at 25,214 kg. In the same year, 1,694 units of orange microdot and "Grateful Dead" blotter LSD were intercepted in Charlottetown, PEI, and 1,000 units of orange microdot LSD were seized in Saint John, NB.

PRINCE EDWARD ISLAND

More Action on Drinking and Driving

People with three or more impaired driving convictions on Prince Edward Island are referred by the Highway Safety Division to the Alcohol and Drug Problems Institute. In an institute survey of referrals made between January 1985 and August 1988, all but one of the 74 respondents "recognized the need to stop drinking and driving."[64] However, thirteen had repeated the act after completing the program, and six of them had been charged with impaired driving.

Most Prince Edward Islanders want more community programs related to impaired driving. For example, 97% believe driver education should include information on drinking and driving; 94% believe more educational programs against drinking and driving are needed; and 90% consider more bars and taverns should set up designated driver programs. Nearly 90% believe roadblocks and spot checks should be increased, 86% want stricter enforcement of existing laws, and 86% want an increase in advertisements against drinking and driving.

Light Drinkers

Prince Edward Islanders remain among Canada's most conservative drinkers. The collective moderation of the island's 130,000 residents is reflected in two developments in the last two or three years. One has to do with when people may drink, and the other with where. In 1993, the PEI government rejected a proposal to allow bars to open Sunday afternoons and evenings in tourist season.[65] It also upheld a ban on liquor advertising, although such ads still come in from outside PEI on television and radio, and in newspapers and magazines.

In 1991, the government had also examined the question of serving alcoholic beverages in government-owned or —leased buildings, primarily because of the question of legal liability of alcohol providers.[66] As a result, it ruled out serving or consuming of alcoholic beverages on the grounds of, or in, any building it owns or occupies. Exceptions include premises rented for specific functions and particular receptions hosted by the premier or ministers of government.

Stores May Sell Alcohol

Some retail stores on Prince Edward Island will be allowed to sell alcohol following an amendment to the province's Liquor Control Act. The provincial attorney-general presented the move as an attempt by government to provide better service to communities far removed from current government outlets without the government's having to establish more outlets. When the bill was introduced, the Liquor Control Commission chair said there was room for between three and eight of the new outlets.[67]

Young People Feel Pressures at Home

In a 1992 group discussion involving junior high school girls in Charlottetown, researchers found

that the girls' reasons for alcohol use included peer pressure and wanting to fit in.[68] The girls also "have a lot of pressure at home and don't know how to handle it."

A 1989 study showed that 69% of Charlottetown girls aged 13 to 18 believe alcohol and other drug misuse is "some form of problem," 32% considering it a serious problem. Among boys the same age, 57% believe misuse is "some form of problem," 23% considering it a serious problem.[69]

NEWFOUNDLAND AND LABRADOR

Impaired Driving

Since 1983, the incidence of drinking and driving has steadily declined across Canada, except for the Northwest Territories. In Newfoundland and Labrador, however, the number of drinking and driving offences dropped dramatically—by about 20% to 2,873 in 1990 from 3,584 in 1983. In the same period the number in Canada dropped about 16%, to 139,871 from 166,438.[70] Comparison of the offence rates per 100,000 population between Newfoundland and Canada in 1990 suggests that overall Newfoundlanders drink and drive less often than other Canadians (501.4 vs. 526.1 respectively). Only Québec (355.1) and Ontario (377.9) had lower rates in the same period.

Newfoundland researchers caution that the declines may be the result of changing behaviours, but they may also reflect changing law enforcement practices: regional variations may be due to competing law enforcement priorities, availability, or efficiency.

Women and Youth

Many more men (59.7%) than women (35.5%) in Newfoundland and Labrador drink to relax, and 44.7% of men, as compared to 23.9% of women, drink to feel good. On the other hand, women are more likely (87.3%) than men (75.6%) to drink to be sociable.[71] Youth in Newfoundland and Labrador who consider themselves current drinkers most commonly drink to be sociable (81.3%). About 48% drink to relax, 34.6% to feel good, 23.6% to forget worries, 20.1% to feel less shy, and 12.1% to add to the enjoyment of meals.

In Newfoundland and Labrador, the number of drinking and driving offences dropped dramatically—by about 20% to 2,873 in 1990 from 3,584 in 1983. In the same period the number in Canada dropped 16%.

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NEW HORIZONS

RESEARCH ISSUES AND CHALLENGES

Canada's Drug Strategy asks a tremendous and diverse range of partners to work together: researchers, frontline treatment workers and other program personnel, educators, policymakers, and more. The partners represent not only a wide range of professional pursuits and interests but also extremely varied geographic and cultural milieus. And they work in many languages.

Some of the progress being made in developing and applying new knowledge is reflected in this report. Perhaps the public (and even professionals) need reminding, for example, that illicit drug use among young people remains significantly lower than it was in the late 1970s and early 1980s—indeed, that most young people do not use illicit drugs. There is progress too in the development and capturing of information from the provinces and territories about people deemed in this second phase of the strategy to be at special risk and worthy of increased research: street youth and school dropouts, women, seniors, Métis, Inuit and off-reserve aboriginal peoples, and impaired drivers.

Most important for this section of *Horizons 1994*, however, is the growing acknowledgement and understanding among partners of some of the technical problems—and challenges—that remain in the complex process that is Canada's evolving drug strategy: difficulties around the actual gathering of data and the development of new knowledge, around getting the information out to the people who need it and in the language and format in which they need it, around reconciling research imperatives with the requirements of policymakers, and, for treatment and program people, around translating what is new and useful into action in the community.

This section distills some concerns and challenges for the future that were set out by researchers and practitioners alike in consultations as Phase Two of the Strategy has progressed, and also by researchers from every province and territory in their reports to Health Canada, on which this document is largely based. Some of the researchers' comments are referred to below. Although their

comments are their own, they may also reflect the frustrations of many of their Strategy partners.

In terms of problems and challenges, there are many recurring themes that can be captured in just a few words: gaps, relevance, communication, collaboration. On some important research issues there is consensus. Researchers from right across the country, for example, suggest that findings of the federal, provincial, and territorial studies should augment each other's databases. For one thing, many researchers note, provincial and territorial sample sizes should be such that problems resulting from high sampling variability and suppressed data can be eliminated. Moreover, effectiveness could be increased by the use of common definitions and inclusion of a set number of identical questions from one study to the next.

GAPS IN DATA

There remain many gaps in the information available on alcohol and other drugs. Basic data on prevalence of heroin, cocaine, and other illicit drugs are sometimes not available from national surveys. Information on illicit drugs is limited to the anecdotal, and there is relatively little information on illicit drug dosages, temporal patterns of alcohol and other drug use, or situational features of consumption. The proportion of particular health and social problems that can be attributed to alcohol or other drug use is often based on information from other countries. And drug-related morbidity data are limited to cases reported in the health care system and do not include information from self-help groups. Even the stigma of being a drug user may still occasionally interfere with accurate data collection, as suggested in one Manitoba study. (See Biases May Linger, Section IV, page 39.)

PROVINCIAL/ TERRITORIAL SAMPLES

Frequently, regional issues complicate data collection. In their report to Health Canada, for example, researchers in Newfoundland present patterns of non-use of drugs because both licit and illicit drug use among adults there is relatively uncommon, and so use patterns are not statistically reliable. Thus, although the non-use information is valuable, researchers are left knowing little about the drug-using population. They recommend that priority be given to systematic research projects that focus exclusively on highrisk groups or that include a sample size large enough to capture an estimable proportion of users.

At the other end of the country from Newfoundland, regional realities have until very recently helped to exclude both Yukon Territory and the Northwest Territories from national surveys. Although new technologies and experience are now allowing for better access to information from the North, researchers explain that not only research, but also treatment and service delivery, has always been—and remains—particularly complex and difficult there.

Yukon researchers, for example, note that there are only 17 communities dotted across the territory's more than a half-million square kilometres. Although about two-thirds of Yukon's total population (about one-quarter of whom consider themselves aboriginal people) live in or near the capital city of Whitehorse, the remaining one-third live in much smaller, isolated communities. And the communities all have very different compositions of people and varying degrees and types of problems.

In the Northwest Territories, although the 1991 census contained some alcohol and other drug questions pertaining to the territories' aboriginal people, there have been no surveys looking specifically at patterns of alcohol and/or other drug use by adults, women, seniors, or aboriginal people. Nor has there been any territories-wide alcohol and other drug survey of youth, although one was done among schoolchildren in Grades 5, 8, and 10 in 1987. Furthermore, partly because most people in the NWT live in isolated communities, not connected by roads, there are few data on vehicle accidents involving alcohol. And NWT researchers could find no published studies specifically analysing morbidity or mortality rates and alcohol use. Although there are data on suicide by prevalence, gender, age, and ethnic status, they do not indicate whether alcohol or other drugs were involved. On the other hand, smoking and smokeless tobacco in the North are the subjects of a number of published papers.

AT-RISK POPULATIONS

There is a particular need as the Strategy moves ahead to obtain better information on the nature and extent of substance abuse in the identified at-risk populations: street youth, women, off-reserve aboriginal peoples, seniors, and impaired drivers.

Manitoba researchers, for example, say there are huge gaps in the data available in Manitoba on alcohol use, particularly among seniors, native people, and to a lesser extent women. The absence of province—wide, comprehensive studies, and thus reliable baseline data, complicates the problem.

On the other hand, research in recent years in British Columbia has focused on youth, and there have also been studies of alcohol and other drug-related problems and experiences among seniors and ethnic and aboriginal peoples, and of related employment and general population issues. However, the studies have tended to be stand-alone, and there is not yet sufficient information to develop trend data or province-wide analysis.

COMMUNICATION AND COLLABORATION

The need for improved communication and collaboration among Strategy partners—in research, treatment, policymaking, law enforcement, and so on—is another area of firm agreement. Although the Canadian Centre on Substance Abuse (CCSA) has developed the National Clearinghouse on Substance Abuse, which provides electronic networking for resource centres across Canada, more mechanisms are required. Suggestions from across the country for improving communication include the establishment of archives and data banks, regular conferences, expanded electronic networking, newsletters, and a Canadian journal on alcohol and other drugs.

EXPANDING RESEARCH DESIGNS

The information presented in this report underlines the need to consider a wide variety of data sources in order to continue adding to the picture of alcohol and other drug use in Canada. A basic description of the nature and extent of problems requires acknowledgement and inclusion of findings from ethnographic, observational, and nontraditional methods of research. The effects of natural experiments, such as changes in policy in a particular jurisdiction, and of natural events, such as major social changes, also merit higher priority to ensure that the information base remains current and relevant to the diversity of Strategy partners. Special studies of unrecorded consumption of alcohol and tobacco, for example, would also add depth to existing information. Such increased flexibility in research design, as well as being innovative and creative in itself, would both enhance the quality of information available and encourage continuing creativity.

As Ontario researchers point out, traditional surveys have their limitations. Yes, surveys are an important tool for exploring relationships among experiences, attitudes, personal characteristics, and behaviours. However, they also tend to underestimate rather than exaggerate the overall volume of alcohol consumed and the proportion of people at higher rates of consumption. To put it another way, more alcohol is sold than is accounted for in the self-reports of surveys. In addition, survey results likely also provide conservative, or lower than actual, estimates of behaviours, particularly those that may be considered deviant or unpopular.

IMPROVING COST ESTIMATES

Information on the economic and social costs of alcohol, tobacco, and other drug use is very limited, partly because of lack of research data. Yet, without reliable estimates of the costs of alcohol and other drugs to Canadian society, substance abuse may not receive the priority it requires on the social and political agendas of the country itself or of the provinces and territories.

British Columbia researchers suggest, for example, that although it is interesting to compare BC with other provinces, it would be more useful if the social and economic features that distinguish the provinces were identified and tested to determine how those features might contribute to drug prevalence.

EMERGING SOLUTIONS

If there are continuing problems, there are also inroads being made toward solving some of them, and at all levels—provincial/territorial and fed-

eral. National surveys, such as Canada's Alcohol and Other Drugs Survey (CADS), for example, have been revised to address more of the information shortages. At the same time, research funding is being redirected so that some of the gaps can be filled. Emphasis on more accurate, timely, and comprehensive data will contribute to the decision-making efforts of both the policymakers and the practitioners and thus, ultimately, to the health of Canadians.

Health Canada and Statistics Canada are now also working together to explore new methods of providing more reliable estimates of population parameters—for example, the percentage of people in less populated areas who use antidepressants. A new approach to analysing the impact of common demographic and socioeconomic data on drug use that is now being tested could make the national database significantly more useful and flexible for people at regional and local levels.

New technologies and experience are now also providing access to the vast regions of the North, and a variety of methods is being employed to ensure that data collection is cost-effective and more nationally comprehensive.

To assist in the study of at-risk populations, special competitions have been held by the National Health Research and Development Program (NHRDP) to stimulate research in these groups. The Studies Unit and the Alcohol and Other Drugs Unit of the Health Promotion Directorate, Health Canada, have also commissioned projects relevant to these groups. In this process, a variety of research methods is being encouraged in order to ensure a more comprehensive approach to what have been, traditionally, hard-to-reach populations.

With respect to estimating the economic costs of alcohol, tobacco, and other drug use, Health Canada and the Canadian Centre on Substance Abuse recently joined with national drug agencies from several countries to sponsor an international symposium on the subject. At the symposium, held in May 1994, a set of guidelines for making cost estimates more accurate and comparable across regions and countries received international agreement. These guidelines should provide a significant boost to efforts to develop credible and reliable cost estimates.

As for communication, attempts to build more and better methods of communicating—across the country and across the addictions field—continue, with a view to adding to coverage already provided by the National Clearinghouse on Substance Abuse.

ON THE HORIZON

Thus, in 1994, research on alcohol and other drug problems in Canada is moving to new places on the landscape. It is moving outward from academic and research centres and into communities. It is encompassing not only the general population but special populations. It is being translated into action and policy.

Ahead is the potential for still further progress. Communication and collaboration among the developers of knowledge and its users—the policymakers and the practitioners—will ensure that existing and emerging needs will be met, priorities set, and new solutions found.

APPENDIX

Many provincial and territorial addictions agencies and other groups and individuals were involved in development of this publication—from the defining of information needs and target readerships through the extensive process of collecting data and capturing "fugitive" information, to reviewing drafts of the manuscript prior to its completion. Some of the research contracts established by Health Canada with provincial and territorial authorities were, in turn, sub-contracted to external research groups or individuals. In the course of the project, temporary staff were also occasionally employed. For space reasons, the names of all of the individuals involved cannot be listed here. However, for further information, the following lists of contacts on various aspects of the publication will be helpful. Included are the addresses of all of the provincial and territorial alcohol and other drug authorities and, where it applies, the names of sub-contracted research groups or individuals; the names and specific affiliations of the provincial and territorial representatives who regularly provide feedback to Health Canada; the names and addresses of members of the Research Advisory Team to Canada's Drug Strategy, which has provided consultation throughout the development process; and, finally, the addresses of the joint publishers. Provincial and territorial authorities are listed geographically, from west to east; otherwise the lists are alphabetical.

PROVINCIAL/TERRITORIAL RESEARCH CONTRIBUTORS

Yukon Territory
Alcohol and Drug Services
Yukon Department of Health and Social Services
6118-6th Avenue Box 2703
Whitehorse, YT Y1A 2C6
Sub-contractor: Laurie Crawford, Interaction Consulting

Northwest Territories
Alcohol, Drug, and Community Health Services
Department of Social Services
Government of Northwest Territories
4th Floor, Precambrian Building
Yellowknife, NT X1A 2L9
Sub-contractor: William Zarchikoff, Muskox Program Development Ltd

British Columbia
Alcohol and Drug Programmes
1019 Wharf Street
Victoria, BC V8V 1X4
Sub-contractor: Robert M. Silver, Coast Consulting

Alberta
Alberta Alcohol and Drug Abuse Commission
6th Floor, 10909 Jasper Avenue
Edmonton, AB T5J 3M9

Saskatchewan
Alcohol and Drug Services
3475 Albert Street
Regina, SK S4S 6X6
Sub-contractor:
Evan Morris, EcoTech Research Ltd

Manitoba
Alcoholism Foundation of Manitoba
1031 Portage Avenue
Winnipeg, MB R3G 0R8
Sub-contractor: Dragan PhD & Associates

Ontario
Addiction Research Foundation of Ontario
33 Russell Street
Toronto, ON M5S 2S1

Québec
Recherche et intervention sur les substances psychoactives—Québec (RISQ)
10 140, rue Lajeunesse
Montreal, PQ H3L 2E2
Sub-contractor: Suzanne Laflamme-Cusson

New Brunswick
Health and Community Services
3rd floor, Carleton Place
PO Box 5100
Fredericton, NB E3B 5G8
Sub-contractor: Annette Huyter

Nova Scotia
Drug Dependency Services Division
Nova Scotia Department of Health
5675 Spring Garden Road
Halifax, NS B3J 1H1
Sub-contractor: Annette Huyter

Prince Edward Island
Addiction Services of Prince Edward Island
PO Box 37
Charlottetown, PE C1A 7K2
Sub-contractor: Annette Huyter

Newfoundland and Labrador
Drug Dependency Services
PO Box 8700
Confederation Building, West Block, 1st floor
St. John's, NF A1B 4J6
Sub-contractors: Gordon Walsh, Janice Cooper

PROVINCIAL/TERRITORIAL REPRESENTATIVES

Kim Baldwin
Drug Dependency Services
St. John's, Newfoundland

John Campbell
Alcohol, Drug, and Community Health Services
Department of Social Services
Yellowknife, Northwest Territories

Suzanne D'Annunzio
Ministry of Health and Welfare
Québec City, Québec

Gerry Kaplan
Alcoholism Foundation of Manitoba
Winnipeg, Manitoba

Heather MacPherson
Addiction Services of Prince Edward Island
Charlottetown, Prince Edward Island

Robert Markosky
Alcohol and Drug Services
Regina, Saskatchewan

Wayne Mitic
Alcohol and Drugs Programmes
Victoria, British Columbia

Peter Rogers
Health and Community Services
Fredericton, New Brunswick

Robin Room
Addiction Research Foundation of Ontario
Toronto, Ontario

Brenda Ryan
Nova Scotia Department of Health
Halifax, Nova Scotia

Ed Sawka
Alberta Alcohol and Drug Abuse Commission
Edmonton, Alberta

RESEARCH ADVISORY TEAM, CANADA'S DRUG STRATEGY

Jim Anderson
Alcohol and Other Drugs Unit
Health Promotion Directorate
Health Canada
Ottawa, Ontario

Florence Andrews
Department of Sociology and Anthropology
Carleton University
Ottawa, Ontario

Gordon Barnes
Department of Child and Youth Care
University of Victoria
Victoria, British Columbia

Virginia Carver
Addiction Research Foundation of Ontario
Ottawa, Ontario

Carl D'Arcy
Applied Research Psychiatry
Royal University Hospital
Saskatoon, Saskatchewan

Art Dyer
Alberta Alcohol and Drug Abuse Commission
Edmonton, Alberta

Patricia Erickson
Addiction Research Foundation of Ontario
Toronto, Ontario

Natalie Kishchuk
Recherche et Intervention
sur les Substances psychoactives
Montréal, Québec

Diane MacKenzie
Policy and Research Unit
Canadian Centre on Substance Abuse
Toronto, Ontario

William McKim
Department of Psychology
Memorial University of Newfoundland
St. John's, Newfoundland

Peggy Millson
Department of Preventive Medicine
and Biostatistics
University of Toronto
Toronto, Ontario

Christiane Poulin
Department of Community Health
and Epidemiology
Dalhousie University
Halifax, Nova Scotia

Robin Room
Addiction Research Foundation of Ontario
Toronto, Ontario

Howard Schachter
Ottawa, Ontario

Eric Single
Policy and Research Unit
Canadian Centre on Substance Abuse
Toronto, Ontario

PUBLISHERS

Canadian Centre on Substance Abuse
480-112 Kent Street
Ottawa, Ontario
K1P 5P2

Studies Unit
Health Promotion Directorate
Health Canada
Tunney's Pasture
Ottawa, Ontario
K1A 1B4